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ANNUAL REPORTS
OF THE
Officers of State
OF THE
STATE OF INDIANA

ADMINISTRATIVE OFFICERS, TRUSTEES AND SUPERINTENDENTS OF THE
SEVERAL BENEVOLENT AND REFORMATORY INSTITUTIONS, AS
REQUIRED BY LAW TO BE MADE TO THE GOVERNOR

FOR THE

Fiscal Year Ending September 30, 1911

BY AUTHORITY

INDIANAPOLIS:
WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING
1913

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PREFACE

STATE OF INDIANA,
OFFICE OF SECRETARY OF STATE,
INDIANAPOLIS, October 1, 1911. }

In accordance with the requirements of an act approved February 3, 1853 (1st G. & H., p. 538), the several administrative officers of the State, and the Trustees and Superintendent of the Benevolent, Reformatory and Educational Institutions thereof, have submitted to the Governor and filed in the Executive Department the reports required of them for the fiscal year ending September 30, 1909, and the calendar year ending December 31, 1909, respectively, which have been entered of record in the order of their reception and delivered to the Secretary of State for publication under the order of the Board of Commissioners of Public Printing and Binding.

One hundred copies of reports are now bound in two volumes, and issued to the officers and persons designated by law to receive them.

ED D. DONNELL,
Clerk Bureau of Public Printing.

257672

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2,129

Indiana

School for the Blind

SIXTY-FIFTH ANNUAL REPORT
OF THE BOARD OF TRUSTEES
AND THE SUPERINTENDENT
FOR THE FISCAL YEAR
ENDING SEPTEMBER 30, 1911

To The Governor

INDIANAPOLIS

INDIANAPOLIS :
WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING
1912

THE STATE OF INDIANA.

EXECUTIVE DEPARTMENT.

DECEMBER 16, 1911.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,

INDIANAPOLIS, December 22, 1911.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,

Auditor of State.

DECEMBER 22, 1911.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,

Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, December 22, 1911.

I. G. ELLINGHAM,

Secretary of State.

Received the within report and delivered to the printer December 26, 1911.

ED D. DONNELL,

Clerk Printing Board.

INDIANA SCHOOL FOR THE BLIND.

1911-1912.

OFFICERS.

Board of Trustees.

A. C. PILKENTON, President, Greenfield, Indiana.
O. D. ODELL, Vice-President, Indianapolis, Indiana.
F. F. WILEY, Treasurer, Edinburg, Indiana.
L. M. DUNLAP, Secretary, Covington, Indiana.

GEORGE S. WILSON, Superintendent.
GEORGE MCINTIRE, Bookkeeper.
DAISY S. WILSON, Matron.
SUSA BARTTLINGCK, Assistant Matron.
ELIZABETH EVANS, Boys' Governess.
KATE CASEY, Girls' Governess.
FRANK A. MORRISON, Physician.
STELLA FREAD, Usher.

TEACHERS.

Literary Department.

L. H. MILLIKAN, 617 N. New Jersey St.
MABEL HAUKE, 2212 Broadway.
OLIVE AUGHINBAUGH, 103 W. Thirty-eighth St.
NANNIE CRAMPTON, 919 N. Pennsylvania St.
MARY CATHERWOOD, 2208 N. Delaware St.
FLORENCE REYNOLDS, 2210 Broadway.

Music Department.

ADELAIDE M. CARMAN, 124 E. Pratt St.
WILLIAM T. SHANNON, 2239 Talbott Ave.
BERTHA SCHELLSCHMIDT, 1220 N. Alabama St.
LULU A. FISHER, 129 E. Pratt St.

Physical Culture.

CARL B. SPUTH, 524 N. Pennsylvania St.

Industrial Department.

ZORA TOMLINSON, 1139 Nelson St.
CARA B. FRENCH, 530 E. Eleventh St.
B. F. SMITH, 147 W. Fall Creek Boulevard.
WILLIAM RHOADES, 1403 Hamilton Ave.

Skilled Labor.

IRVIN R. SHARP, Engineer, 1840 Highland Place.
L. N. HOLMES, Night Engineer, 1944 Wilcox St.
WILLIAM JOHANSON, Florist, Institution.
MAY MURRAY, Laundress, 2514 Indianapolis Ave.
HENRY BEIDLER, Baker, Institution.

REPORT OF BOARD OF TRUSTEES.

Hon. Thos. R. Marshall, Governor of Indiana:

We herewith respectfully present to you the Sixty-fifth Annual Report of the Indiana School for the Blind.

The Trustees met on the first Wednesday after the first Monday in April, in conformity with the law, and selected A. C. Pilkenton, president; O. D. Odell, vice-president; L. M. Dunlap, secretary; and F. F. Wiley, treasurer.

It gives us pleasure to report that we consider the School to be in excellent condition. Since the completion of the new fire-proof dormitory, a great deal has been added to the School in the way of safety and efficiency. The improvements referred to in our last report to you have proved in every way most satisfactory. We believe that, with the erection of the auditorium, for which the last Legislature provided, the School will be provided for in a worthy and complete way. Our oversight of the work of the superintendent and teachers during the last year leads us to the confidence that it has been done with great faithfulness and efficiency. Serious sickness, although threatened, has been avoided through the promptness and care of those in charge. We believe the general results along the lines of education, discipline and training are commendable.

To the best of our ability, we have endeavored to administer the appropriations of the past fiscal year with economy and exactness, and hereby submit for your examination our financial report:

Property Values.

Real estate (land and improvements)	\$644,100 00
Personal property	28,978 79
Total	\$673,078 79

Receipts.

Appropriations—Regular—	
Maintenance	\$35,000 00
Industries	3,000 00
Repairs	2,500 00
Library	500 00
Total	\$41,000 00

Appropriations—Special—

Boys' dormitory and furnishings for same (balance available)	\$9 65
Total	\$9 65

Earnings and sales—

Broom shop	\$283 83
Cane shop	14 80
Sewing room	46 81
Miscellaneous	52 50
Total	\$397 94

Expenditures.

Appropriations—Regular—

Maintenance	\$34,994 93
Industries	2,945 12
Repairs	2,499 56
Library	482 79
Total	\$40,922 40

Covered into State Treasury.

Appropriations—Regular—

Maintenance	\$5 07
Industries	54 88
Repairs	44
Library	17 21
Total	\$77 60

Appropriations—Special—

Boys' dormitory and furnishings for same	\$9 65
Total	\$9 65

Earnings and sales—

Broom shop	\$283 83
Cane shop	14 80
Sewing room	46 81
Miscellaneous	52 50
Total	\$397 94
Grand total covered into State Treasury	\$485 19

The appropriations for the past fiscal year have been sufficient. We have been able to supply wholesome food, and in most cases pay satisfactory salaries. We invite the closest inspection of officers and the public.

Respectfully,

A. C. PILKENTON, President.
O. D. ODELL, Vice-President.
L. M. DUNLAP, Secretary.
F. F. WILEY, Treasurer.

SUPERINTENDENT'S REPORT.

To the Board of Trustees of the Indiana School for the Blind:

Gentlemen—In compliance with a provision of the statutes of the State of Indiana, I herein submit for your consideration the Sixty-fifth Annual Report of the Superintendent of the Indiana School for the Blind. Much of the data contained is required by law; other, of advantage to officials or of interest to the public, is given.

There were enrolled within the past year seventy boys and eighty-seven girls, a total of 157 pupils. There were present at the close of the fiscal year fifty-seven boys and seventy-one girls. The average daily attendance for the school term of nine months was 58.08 boys and 69.11 girls.

During the past year, the pupils have been in good health with the exception of four who contracted scarlet fever from unknown sources. They were promptly isolated and no contagion resulted.

The only change in teachers and officers was the physical training director. Dr. Guedel resigned at the end of the school year in June and Dr. Sputh was appointed to succeed him. His preparation for the work has been ample; he has held responsible positions and he was strongly recommended by President Howe of Butler College.

The school work throughout the past year has been satisfactory: the pupils have made good progress in most cases and their conduct generally has been commendable. The following pupils have been enrolled within the past fiscal year:

BOYS.

Pupil's Name.	Parent or Guardian.	County From Which Pupil Enrolled.	Address of Pupil.	Grade.
Addington, Everett	Sarah Addington	Jay	Winchester, R. D. 3, Box 56	11
Allen, Robert	Frank Brady	Marion	Indianapolis, 1010 S. Sheffield Ave.	7
Anders, Floyd	William Anders	Sullivan	Sullivan, 823 Court St.	7
Bevins, Isaac	Chas. Bevins	Marion	Indianapolis, 1067 W. 30th St.	5
Blumer, Milton	Addie Blumer	Tippecanoe	Lafayette, 1302 N. 12th St.	1
Browning, Irving	Wesley Browning	Tipton	Sharpsville, R. D. 2	7
Brown, Ralph	Harry Brown	Marion	Indianapolis, 2218 Woodlawn Ave.	11
Christman, Herbert	John Christman	Huntington	Huntington, R. D. 1	5
Clark, Jesse	Wallace Clark	Bartholomew	Columbus, 1433 Union St.	11
Cockerham, Homer	Elizabeth Cockerham	Marion	Indianapolis, 541 S. East St.	9
Cutting, Bert	Harry Cutting	Orange	French Lick	7
Daum, Carl	August Daum	Marion	Indianapolis, 622 Arch St.	3
Day, Orville	Frank Day	Martin	Shoals, R. D. 2	6
Dempsey, Ora	John Dempsey	Grant	Marion, 1824 Factory Ave.	5
Dowery, Donald	Margaret Dowery	Vanderburgh	Evansville, 422 Third Ave.	2
Elliott, Earl	Minnie Miller	Allen	Ft. Wayne, 1302 Lafayette St.	7
England, Oscar	John England	Marion	Indianapolis, 1553 Columbia Ave.	2
Flemming, Glenn	Amelia Flemming	Marion	Brightwood	1
Field, Morris	Chas. E. Field	Marion	Indianapolis, 21 The Pasadena	2
Ferguson, Dean	Thos. Ferguson	Vigo	Terre Haute, R. D. 3	6
Fox, Bernice	Wm. Fox	Bartholomew	Columbus, 1022 Union St.	6
Fletcher, Floyd	Mary Fletcher	Martin	Huron	2
Gimlich, August	Kate Gimlich	Vanderburgh	Evansville, 123 Elm Ave.	7
Gordon, Orville	Willis Gordon	Tipton	Tipton, R. D. 4	1
Granger, Herbert	Walter Granger	Madison	Elwood	2
Harrison, Russell	Otto Lieurance	Grant	Peru, 255 W. Main St.	11
Herring, Ruby	Wm. Herring	Wells	Gas City	5
Hart, Leo	Lewis Hart	Jay	Dunkirk	1
Hoon, Leroy	S. E. Bitner	Huntington	Huntington, 556 Whitlock St.	10
Hubbard, Harry	Mrs. Geo. Auten	Owen	Freedom, R. D. 1	12
Hutchins, Herschell	Emma Voyles	Morgan	Whitaker	3
Handtke, Clarence	Herman Handtke	Laporte	Whiting, Box 297	2
Jenkins, Raymond	Francis Jenkins	Henry	Connersville, R. D. 8	6
Jones, Adam	Lew Jones	Delaware	Indianapolis, 823 Christian Place	1
Jackson, Paul	Anna C. Jackson	Jackson	Seymour, W. 3rd St.	3
Judd, Ray	Wm. Judd	Gibson	Princeton, 423 Ohio St.	4
Knight, Lewis	Alonzo H. Hostetler	Lawrence	Mitchell	4
Leis, Paul	Alva Leis	Hancock	Morristown	9
Limerick, Chas.	Luther Lee	Wells	Montpelier, R. D. 11	3
Maher, Wm.	P. J. Maher	Tippecanoe	Lafayette, 1011 N. 7th St.	9
Miller, Earl	Henry Miller	Montgomery	Shadyside, R. D. 36	6
Miller, Ralph	Martha Miller	Knox	Sandborn	1
McDaniels, John	Wesley McDaniels	Greene	Bloomfield, R. D. 1	1
Mann, Marvin	Chas. Mann	Randolph	Lynn	7
Miller, Jesse	James Miller	Miami	Indianapolis, 1027 E. Pratt St.	2
Molineaux, Edward	Harry Molineaux	Marion	Indianapolis, 573 Bismarck Ave.	2
Painter, Willie	A. W. Cave	Dubois	Crystal	2
Porter, Herman	Frank Porter	Lake	Hammond, R. D. 1	8
Pollard, Allen	Geo. Pollard	Noble	Kendallville	10
Petit, Willie	Sally Petit	Vanderburgh	Indianapolis, Agnes St.	2
Ray, Frank	Harper L. Ray	Parke	Bloomington	7
Roush, Earnest	Bertha Gott	Tippecanoe	Lafayette	1
Ream, Omer	Idona Conrad	Howard	Hemlock, Box 64	12
Robinson, Luther	Geo. A. Allen	Fayette	Connersville, 101 Summit Ave.	8
Schneider, Philip	W. E. Schneider	Vanderburgh	Evansville, 1307 E. Franklin St.	12
Schwartz, Fred	Dora Shaffer	Vigo	Terre Haute, 1106 S. 11½ St.	7
Schmitt, Carl	Eva Schmitt	Marion	Indianapolis, 1408 N. Temple Ave.	3
Swartz, Elmer	Chas. J. Swartz	Starke	Hamlet, R. D. 1	8
Sellers, Howard	Comodore Sellers	Huntington	Huntington, 719 Leopold St.	8
Shook, Herbert	Chas. Shook	Marion	Indianapolis, N. New Jersey St.	2

BOYS—Continued.

PUPIL'S NAME.	Parent or Guardian.	County From Which Pupil Enrolled.	Address of Pupil.	Grade.
Sumners, Manford.....	Walter Sumners.....	Jackson.....	Seymour, 324 Poplar St.....	2
Steele, Francis.....	Anna Hughes.....	Marion.....	Indianapolis, 611 N. Hudson St.....	1
Steele, Harry.....	Carrie I. Steele.....	Henry.....	Knightstown.....	3
Terrell, Ralph.....	Morton Terrell.....	Vigo.....	Terre Haute, 1616 Sixth Ave.....	6
Thornburg, Raymond.....	Carrie Bowman.....	Marion.....	Indianapolis, 1020 E. Pratt St.....	3
Thompson, Hillis.....	Frank Thompson.....	Marion.....	Indianapolis, 1710 College Ave.....	10
Wagner, Bernard.....	J. P. Wagner.....	Cass.....	Logansport, 212 Montgomery St.....	9
Washington, Claude.....	Chas. Washington.....	Warriack.....	Newburg.....	2
Wilson, Herman.....	Lawson S. Wilson.....	Delaware.....	Eaton, R. D. 2.....	*
Wiles, Oscar.....	Sarah Small.....	Grant.....	Marion, Marion Orphans' Home.....	3

GIRLS.

Allen, Della.....	Robert Allen.....	Knox.....	Sandborn.....	10
Adkins, Anna.....	Frank Adkins.....	Bartholomew.....	Columbus, 838 Werner Ave.....	1
Barnes, Ella.....	Margaret Huff.....	Whitley.....	Columbia City, R. D. 13.....	7
Barker, Beryl.....	James Barker.....	Marion.....	Indianapolis, 1514 E. Market St.....	2
Brown, Carlene.....	D. W. Brown.....	St. Joseph.....	South Bend.....	6
Bloxham, Lelia.....	Ruth Murray.....	Marion.....	Indianapolis, 506 N. Oriental St.....	1
Brown, Stella.....	Simeon Brown.....	Greene.....	Bloomfield, R. D. 1.....	1
Bowers, Bernice.....	Edward Bowers.....	Whitley.....	South Whitley.....	1
Carver, Bertha.....	Chas. Carver.....	Adams.....	Monroe, R. D. 1.....	9
Chamberlain, Margaret.....	Shannon Chamberlain.....	Wayne.....	Centerville, R. D. 11.....	4
Craig, Dorothy.....	Thos. Craig.....	Fulton.....	Kokomo.....	8
Cromie, Mary.....	Harris Cromie.....	Spencer.....	Rockport.....	2
Chapman, Gladys.....	Rozella Chapman.....	Marion.....	Indianapolis, 22 S. Warman Ave.....	6
Davis, Pearl.....	W. H. Davis.....	Tipton.....	Windfall, R. D. 3.....	9
DeArmond, Nellie.....	W. S. DeArmond.....	Jasper.....	Tefft.....	8
Dugan, Mary.....	Geo. M. Dugan.....	Marion.....	Indianapolis, 521 Alton Ave.....	12
Dondono, Dollie.....	J. A. Dondono.....	Marion.....	Indianapolis, 1316 W. Market St.....	4
Edwards, Lelia.....	Chas. Edwards.....	Montgomery.....	Mace.....	3
Estes, Ursa.....	Madison Estes.....	Shelby.....	Shelbyville 117 E Walker St.....	10
English, Jessie.....	Sup't P. T. Stultz.....	Rush.....	Knightstown, S. and S. O. Home.....	5
Fisher, Hazel.....	Jacob Fisher.....	Parke.....	Rosedale, R. D. 2.....	4
Fletcher, Eula.....	Mary Fletcher.....	Lawrence.....	Huron, Box 60.....	7
Finnan, Alora.....	P. T. Finnan.....	Fountain.....	Covington.....	3
Freed, Lissie.....	A. L. Freed.....	Lawrence.....	Campbellsburg.....	6
Freed, Ophia.....	A. L. Freed.....	Washington.....	Campbellsburg.....	4
Gilmore, Sybil.....	Carl Gilmore.....	Marion.....	Indianapolis, 2905 Brightwood Ave.....	5
Griffith, Mary.....	Irvin Griffith.....	Sullivan.....	Shelburn.....	1
Gray, Flora.....	Malonia Gray.....	Marion.....	Indianapolis, 425 Rankin St.....	9
Godfroy, Bessie.....	Jennie Godfroy.....	Miami.....	Huntington, 608 George St.....	5
Henderson, Nora.....	Ruth Kemple.....	Orange.....	Rego.....	7
Hayes, Ada.....	Mahlon Hayes.....	Grant.....	Gas City.....	5
Hester, Thelma.....	Mrs. M. Hester.....	Jay.....	Redkey.....	5
Hopewell, Glenn.....	Call Hopewell.....	Sullivan.....	Sullivan.....	3
Huston, Mildred.....	Elbert Huston.....	Noble.....	Albion.....	11
Hurst, Grace.....	Mary Hurst.....	Adams.....	Decatur.....	1
Heider, Marie.....	Oscar Heider.....	Marion.....	Indianapolis, 2711 Bellefontaine St.....	10
Ike, Catherine.....	Chauncey Ike.....	Vigo.....	Terre Haute, 1817 12½ St.....	7
Jamieson, Genevieve.....	Oscar Jamieson.....	Wayne.....	East Germantown.....	5
Johnson, Ethel.....	Mary Rauboldt.....	Bartholomew.....	Columbus, 521 California St.....	5
Keller, Lydia.....	Mollie M. Keller.....	Warriack.....	Boonville.....	*
Kerbox, Jessie.....	Susan Kerbox.....	Marion.....	Indianapolis, R. D. 12.....	4
Klos, Antonia.....	Michael Klos.....	Lake.....	Dyer, R. D. 1.....	5
Kramer, Clara.....	Joseph Kramer.....	Lake.....	Hammond, 221 Harrison Ave.....	4
Lewis, Ruth.....	John Lewis.....	Marion.....	Indianapolis, 1315 Bradbury St.....	4

*Graduated.

GIRLS—Continued.

PUPIL'S NAME.	Parent or Guardian.	County From Which Pupil Enrolled.	Address of Pupil.	Grade.
Lore, Sarah.....	Richard Lore.....	Parke.....	Rockville, R. D. 7.....	5
Luken, Pauline.....	Anna Luken.....	Vanderburgh.....	Evansville, 100 E. Indiana St.....	6
McCullough, Blanche.....	Nelson McCullough.....	Clay.....	Poland, R. D. 2.....	7
McGarvey, Ellen.....	Ovid Lawrence.....	Vigo.....	Terre Haute, Glen Home, R. D. 5.....	3
Meyer, Lydia.....	Simon C. Meyer.....	Knox.....	Vincennes, Box 96, Fairground Ave.....	9
Malone, Lilly.....	Richard Malone.....	Vermillion.....	Dana, R. D. 2.....	6
Martin, Essie.....	Mrs. Josie Martin.....	Jennings.....	North Vernon.....	3
McDonald, Hazel.....	Lulu McDonald.....	Marion.....	Indianapolis, 123 Shelby St.....	5
Murray, Anna.....	May Murray.....	Marion.....	Indianapolis, 2514 Indianapolis Ave.....	10
Murphy, Agnes.....	Louis O'Brien.....	Hendricks.....	Bridgeport.....	5
Moore, Lucile.....	John Moore.....	Grant.....	Indianapolis, 411 Douglass St.....	1
Neukom, Madonna.....	Herman Neukom.....	Vigo.....	Terre Haute, 2030 N. 7th St.....	3
Nace, Goldie.....	Wm. Nace.....	Laporte.....	Laporte.....	3
Orndorf, Mabel.....	Mrs. Arrie Harris.....	Marion.....	Indianapolis, 923 Dryer Place.....	4
Owens, Elizabeth.....	Kate Owens.....	Washington.....	Salem.....	4
Powers, Emma.....	Harry Powers.....	Hancock.....	Greenfield, 227 W. South St.....	3
Rouch, Pearl.....	W. H. Rouch.....	Fulton.....	Rochester.....	11
Rich, Mildred.....	John Rich.....	Madison.....	Markleville.....	1
Schneider, Catherine.....	Wm. E. Schneider.....	Vanderburgh.....	Evansville, 1307 E. Franklin St.....	8
Schneider, Maud.....	Wm. E. Schneider.....	Vanderburgh.....	Evansville, 1307 E. Franklin St.....	4
Stafford, Lourie.....	John E. Kerr.....	Marion.....	Haughville, R. D. 18.....	6
Schroades, Elizabeth.....	Louise Burkhart.....	Spencer.....	Rockport.....	7
Sheehan, Maud.....	Eugene Sheehan.....	Marion.....	Indianapolis, 554 Bell St.....	5
Sheets, Jennie.....	Howard Sheets.....	Jefferson.....	Madison, 1017 Park Ave.....	3
Sheppard, Stella.....	Margaret Sheppard.....	Henry.....	Newcastle, 426 N. 9th St.....	8
Speyer, Pauline.....	Henry Speyer.....	Marshall.....	Culver.....	5
Short, Jessie.....	C. E. Short.....	Clay.....	Brazil.....	10
Schardt, Juanita.....	Fred W. Schardt.....	Marion.....	Indianapolis, 306 N. Holmes Ave.....	4
Simcox, Lydia.....	Townsley Simcox.....	Harrison.....	Corydon.....	7
Stowell, Vera.....	Herbert Stowell.....	Marion.....	Laporte.....	3
Smith, Mary.....	Wm. Smith.....	Wayne.....	Richmond, 18th St.....	1
Stracken, Ethel.....	Board of Children's Guardians.....	Marion.....	Indianapolis.....	5
Timm, Josie.....	John Timm.....	Laporte.....	Michigan City, 410 E. 9th St.....	3
Thompson, Tressie.....	Chas. Thompson.....	Marion.....	Indianapolis, 407 Patterson St.....	8
Walk, Laura.....	Joseph L. Walk.....	Crawford.....	Depauw, R. D. 2.....	5
Whybrew, Ruby.....	Morton Whybrew.....	Grant.....	Fairmount.....	5
Walling, Lola.....	Lewis G. Walling.....	Jay.....	Pennville.....	11
Wells, Erlamond.....	Mrs. John Dille.....	St. Joseph.....	Chesterton.....	4
Wiley, Genevieve.....	F. F. Wiley.....	Johnson.....	Edinburg.....	6
Wagner, Ruth.....	John Wagner.....	Vigo.....	Terre Haute, 145 Market St.....	1
Whitaker, Bernice.....	Orien Whitaker.....	Marion.....	Indianapolis, 307 Denny St.....	3
Williams, Lucile.....	Wm. G. Williams.....	Elkhart.....	Laporte, 805 Linwood Ave.....	2
Wilson, Fay.....	Cora Wildon.....	Marion.....	Indianapolis 2740 Cornell Ave.....	1

COUNTY REPRESENTATION.

COUNTIES.	MOVEMENT OF POPULATION, OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.				PRESENT CLOSE OF YEAR.	
	Received.		Discharged.		Male.	Female.
	Male.	Female.	Male.	Female.		
Adams.....		2		1		1
Allen.....	1				1	
Bartholomew.....	2	2	2			2
Crawford.....		1				1
Cass.....	1				1	
Clay.....		2		1		1
Delaware.....	2		1		1	
Dubois.....	1		1			
Elkhart.....		1				1
Fulton.....		2				2
Fayette.....	1				1	
Fountain.....		1		1		
Grant.....	3	3	1		2	3
Greene.....	1	1			1	1
Gibson.....	1				1	
Hendricks.....		1		1		
Hancock.....	1	1			1	1
Harrison.....		1				1
Huntington.....	3				3	
Howard.....	1				1	
Henry.....	2	1			2	1
Jackson.....	2				2	
Johnson.....		1				1
Jay.....	2	2			2	2
Jefferson.....		1				1
Jennings.....		1				1
Jasper.....		1				1
Knox.....	1	2			1	2
Laporte.....	1	2		1	1	1
Lawrence.....	1	2			1	2
Lake.....	1	2			1	2
Miami.....	1	1			1	1
Marion.....	14	21	4	4	10	17
Morgan.....	1				1	
Marshall.....		1				1
Montgomery.....	1	1			1	1
Martin.....	2		1		1	
Madison.....	1	1			1	1
Noble.....	1	1			1	1
Owen.....	1				1	
Orange.....	1	1			1	1
Parke.....	1	2		1	1	1
Rush.....		1		1		
Randolph.....	1				1	
Starke.....	1				1	
St. Joseph.....		2				2
Spencer.....		3				3
Sullivan.....	1	2	1			2
Shelby.....		1				1
Tipton.....	2	1	1	1	1	
Tippecanoe.....	3		1		2	
Van-derburgh.....	1	5			4	
Vermillion.....		1				1
Vigo.....	3	4		2	3	2
Washington.....		2		1		1
Wells.....	2				2	
Whitley.....		2				2
Wayne.....						
Warrick.....	1	1		1		
Total.....	70	87	12	16	57	71

SCHOOLS.

LITERARY DEPARTMENT.

L. H. MILLIKAN, Principal, High School, Room 6—12s and 11s.
 MABEL HAUKE, High School, Room 5—10s and 9s.
 OLIVE AUGHINBAUGH, Room 4—8s and 7s.
 NANNIE CRAMPTON, Room 3—6s and 5s.
 MARY CATHERWOOD, Room 2—4s and 3s.
 FLORENCE REYNOLDS, Room 1—2s and 1s.

All pupils in this institution are in this department. Twelve years are required for graduation. A year's work is the amount suitable to an average pupil for five hours a day for nine months. The course of study is as near that of the public schools of the State as the necessary modifications will permit. The text and reference books for this department are in the New York Point.

COURSE OF STUDY.

Reading.—New York Point: Alphabet by groups of letters similar in form. Groups of simple words similar in form and sound selected from the First Reader. Primer and First Reader complete with supplemental work.

Spelling.—All words in the First Reader spelled orally. Special attention given to syllabication.

Writing.—Small letters. Sentence work commenced.

Numbers.—Numbers 1 to 10. Each number as a whole. Relations in the numbers. Numbers taken away. Fractional parts. All with objects real or imaginary. Drill in rapid combinations.

Language.—Correction of errors in the pupil's language. All answers to be given in complete statements. Exercises on "a" and "an," "is" and "are," and "was" and "were."

Geography.—"Seven Little Sisters."

Form.—Plane and solid forms.

Memorizing.—Simple selections from books and papers.

General Lessons.—Lessons on familiar animals, on parts of the human body and on the care of the health.

Second Year.

Reading.—Point Second and Third Readers. Appleton's First, completed with supplemental work.

Spelling.—Spell all new words found in the readers—both oral and written spelling. Attention given to syllabication.

Writing.—Point writing. Small letters and capitals. Sentence work.

Numbers.—Numbers 10 to 50, same as in first year. Simple problems to illustrate each relation. Have pupils give simple fractional parts of numbers. Teach Roman numerals. Develop orders to ten thousand. Drill on rapid combination. Walsh's New Primary Arithmetic, Chapter 1.

Language.—Continued as in first year. Simple lessons on forms of verbs, nouns and pronouns. Forms of sentences. Exercises in changing from one form to another. Simple lessons in letter writing.

Geography.—"Each and All."

Form.—Modeling of solid forms, and objects related in form. Designs with plane forms.

Memorizing.—Simple selections from books and papers.

General Lessons.—Lessons on common articles of food. Lessons on animals continued.

Third Year.

Reading.—Point Fourth and Fifth Readers, Appleton's Second, completed with supplemental work.

Spelling.—Oral and written spelling—all new words found in the readers. Attention given to syllabication. General definitions of words as found in the readers.

Numbers.—Review of previous year's work by miscellaneous rapid combinations and subtraction work. Original problems. Walsh's New Primary Arithmetic, Chapters 2-3.

Language.—Sentence work. Sentences using common verbs in both singular and plural numbers. Common punctuation marks and abbreviations.

Writing.—Copy memory gems and selections read by the teacher in addition to the written work of other recitations. Letter writing.

Geography.—"World and Its People, No. 3."

Memorizing.—Suitable selections from books, papers and magazines.

General Lessons.—Lessons on the human body and on plants and animals.

Fourth Year.

Reading.—Point Sixth Reader, Appleton's Third, completed with supplemental work.

Spelling.—Same as in third year.

Numbers.—Walsh's New Primary Arithmetic, Chapters 4 and 5.

Language.—Sentence work continued. Subject and predicate. Plurals and possessives. Principal parts of verbs in general use. Simple compositions on common subjects and about familiar objects. Letter writing.

Writing.—Same as in third year.

Geography.—Tarr and McMurray, Part 1.

Memorizing.—Same as in third year.

General Lessons.—The work of the third year elaborated.

Fifth Year.

Reading.—Point Seventh Reader, Appleton's Fourth, with supplemental work.

Spelling.—Oral and written spelling—all new words in the reader. Definitions.

Numbers.—Walsh's New Grammar School Arithmetic, Chapters 1 and 2.

Language.—Reed and Kellogg's Graded Lessons in English to lesson 71.

Writing.—Copy work indicated by the teacher in addition to spelling and language work.

Geography.—Elementary Geography.—Indiana Educational Series—to South America. United States studied with dissected map.

History.—"Stories of Our Country."

Sixth Year.

Reading.—Point Eighth Reader, Appleton's Fifth, with supplemental work.

Spelling.—Same as in fifth year.

Numbers.—Walsh's New Grammar School Arithmetic, Chapters 3 and 4.

Language.—Reed and Kellogg's Graded Lessons in English from lesson 71 to page 156.

Writing.—Same as in fifth year.

Geography.—Home Geography, Part 2. Begin with South America and finish the book.

History.—"From Colony to Commonwealth."

Seventh Year.

Arithmetic.—Walsh's New Grammar School Arithmetic, Chapter 5.

Grammar.—Reed and Kellogg's Higher Lessons in English from lesson 10 to lesson 85. Much attention should be given to composition work.

Geography.—The Werner Grammar School Geography. Study South America and Asia, with dissected maps and review the United States.

History.—"Eggleston's History of the United States" read to the class during the year.

Note.—Spelling and reading should be continued throughout the course in connection with other subjects.

Eighth Year.

Arithmetic.—Walsh's New Grammar School Arithmetic, Chapter 6.

Grammar.—Reed and Kellogg's Higher Lessons in English from lesson 85 to lesson 139. Composition work continued.

History.—Barnes' History of the United States.

Physiology.—Steele's Physiology.

HIGH SCHOOL COURSE.

NINTH YEAR.	Algebra.	Composition and Rhetoric.	Civil Government.	Physical Geography.	Music or Industries.
	Algebra.	Composition and Rhetoric.	Civil Government.	Physical Geography.	Music or Industries.
TENTH YEAR.	Algebra.	American Literature.	General History.	Physics.	Music or Industries.
	Algebra.	American Literature.	General History.	Physics.	Music or Industries.
ELEVENTH YEAR.	Geometry.	English Literature.	General History.	Sociology.	Latin, Music or Industries.
	Geometry.	English Literature.	General History.	Sociology.	Latin, Music or Industries.
TWELFTH YEAR.	Geometry.	English Literature.	English History.	Psychology.	Latin Music or Industries.
	Geometry.	English Literature.	English History.	Psychology.	Latin, Music or Industries.

Forty credits are necessary to graduate from the Literary High School department. A credit is one-half year's work of one period of recitation daily for five days in a week, with necessary preparation. At the end of the eighth year, the pupil may elect the industrial, literary or music course.

PROGRAM OF LITERARY WORK AND RECITATIONS.

COMMENCES.	REYNOLDS, Room I.	CATHERWOOD, Room II.	CRAMPTON, Room III.	ARCHINBAUGH, Room IV.	HAY, Room V.	MILLIKAN, Room VI.	CLOSES.
8:40			CHAPEL EXERCISES.				9:00
9:00	Numbers, 2's.	Numbers, 4's.	Arithmetic, 6's.	Arithmetic, 8's.	Ancient History, 10's and 11's.	Algebra, 9's.	9 30
9:30	Numbers, 1's.	Numbers, 3's.	Arithmetic, 5's.	Arithmetic, 7's.	English Literature, 11's and 12's.	Algebra, 10's.	10:00
10:00	Language, 2's.	Language, 3's.	Reading, 5's.			Supervision.	10:30
10:40	Reading, 2's.	Reading, 4's.	Reading, 6's.		History, 8's.	Geometry, 11's.	11:15
11:15	Reading, 1's.	Reading, 3's.		History, 7's.	English History, 9's and 12's.	Geometry, 12's.	11:45
1:15		Language, 4's.	Grammar, 6's.	Grammar, 8's.	Psychology, 11's and 12's.	Physics 9's and 10's.	1:45
1:45	Language, 1's.		Grammar, 5's.	Grammar, 7's.		American Literature, 9's and 10's.	2:15
2:25	Science, 1's and 2's.	Science, 3's and 4's.	Geography, 5's and 6's.	Geography, 8's.		Supervision	3 00
3:00	Reading, 1's and 2's.	Reading, 3's and 4's.	Reading, 5's and 6's.	Geography, 7's.			3:30
6:15 P. M.	Reading, 7's, 8's, 9's, 10's, 11's, and 12's.						7:00 P. M.

MUSIC DEPARTMENT.

ADELAIDE CARMAN, Principal, Piano and Pipe Organ.

WILLIAM T. SHANNON, Piano and Harmony.

LULU A. FISHER, Voice.

BERTHA SCHELLSCHMIDT, Violin and Mandolin.

In this department all pupils of the institution are not given work. All may be admitted, but only those retained who demonstrate considerable capacity. It is not the purpose to burden this department with pupils who have little capacity or taste for music. The chorus classes are the ones most general, but even in this it is useless to retain pupils who have no ability in this line of work. Individual lessons are given to those only who have shown considerable promise of success.

Chorus work is required throughout the entire course from pupils qualified for this. At the eighth year, when pupils have shown sufficient ability and progress, they are given voice and organ work.

The following is the course of study planned for the music department:

PIANO.

First Year.

Position of body and hands at piano. A knowledge of braille music. Beginning technical exercises (études, legato and staccato, phrasing, etc.). First half of Grade 1, National Graded Course. Recital work (1).

Second Year.

Technical work. Five finger exercises. Preparatory scale work. First half of Grade 1. Little pieces by Lichner, Crosby, Adams and Dennee, and others (2). Recital (2).

Third Year.

Technical work. Five finger exercises on all keys and forms, contrary motion, single and double notes. All scales, major and minor. First half of Grade 2. Sonatinas by Clementi and Kullak (1). Pieces by Hiller, Spindler, Lichner, Reinecek, Loeshorn, Giese and others (2). Recital work (2).

Fourth Year.

Technical work. Preparatory arpeggio work. Preparatory chord work. Scale practice for speed.

Complete second grade. Études from Heller, Cramer, Duvernoy, Loeshorn and others (2). Pieces by Heller, Jensen, Behm, Gade and Schumann (3). Sonatinas from Clementi and Mozart (1). Two hymns. Ensemble work. Recital work (2).

Fifth Year.

Technical work. Progressive scale, arpeggio and chord study. Preparatory octave work.

First half Grade 3. Etudes by Heller, Loeshorn, Czerny, Cramer and others (2). Pieces by Mendelssohn, Gade, Jadassohn, Jenson, Grieg, Schumann, Bendel and others (2). Easy preludes by Bach (1). Two hymns. Ensemble work. Recital work (2).

Sixth Year.

Technical work. Advanced study in scale, arpeggio and chord forms. Progressive octave work.

Complete Grade 3. Beginning work on sonatas (1) Bach Inventions (1). Field Nocturnes (1). Pieces from Hofman, Karkhoff, Nevin, Moszkowski, Scharwenka, Schumann, Chopin and others (3). Three hymns. Ensemble work. Recital work.

HIGH SCHOOL COURSE.

First Year.

Bach's Inventions (2). Sonatas by Mozart and Beethoven (1). Etudes from Chopin, Heller, Moscheles and others (2). Pieces from Chopin, Chamade, Mendelssohn, MacDowell, Schumann, Grieg, Brahms and others (3). Chapel work (six hymns). Recital work (2).

Second Year.

Bach's Inventions (2). Beethoven Sonatas (1). Six selected etudes and pieces from standard writers. Chapel work (six hymns). One concerto or two piano numbers. Recital work (2).

Third Year.

Bach's preludes and figures (1). One sonata or concerto. One accompaniment to song or violin for recital. Three selected pieces or etudes. Chapel work (six hymns). Recital work (2).

Fourth Year.

Applied technic (teaching of two pupils under supervision). Four compositions from modern composers. Chapel work (two anthems). Recital work.

One composition learned without aid of teacher in two months for recital.

Graduating recital.

VOICE.

HIGH SCHOOL COURSE.

First Year.

Reading of braille. Position of body and mouth. Position of tongue. Breathing method explained. Single tone work. Simple studies in intervals. Diatonic scales. First twenty-five lessons in concene. Two simple songs. Recital work (1).

Second Year.

Studies for sustaining the breath. Correct intonation on mingling of tones. Advanced studies in intervals, major and minor. Chromatic scale. Phrasing of words. Last twenty-five concene. Five songs. Recital work (2).

Third Year.

Positions of vowels and consonants. Scale work for clearness, speed and smoothness. Exercises in arpeggio and syncopation. Advanced studies from Abt, Sieber and others. Seven songs from American composers. Recital work (2).

Fourth Year.

Combination of position of tones and words in the mouth. Advanced studies in embellishments. Songs from the classics, Schumann, Schubert and others (10). Graduating recital.

VIOLIN.

First Year.

Position of violin and bow. Reading of braille. Elementary finger exercises. Dancal violin method (4). Harvest of Flowers, collection of easy pieces (2). Recital work (1).

Second Year.

Scale work. Exercises for the wrist. First book of Wohlfahrt studies. Elementary work in third position. Easy solos by Sitt, Herrmann, Dancal, Demuth, Harris, Palaschko, Allen and others (2). Recital work (2).

Third Year.

Scales in third position. Easy technical studies for bowing. First book of Kayser etudes. Solos from Becker, Hauser, Fisher, Cooper, Papini, Dancal, Raff, Rohm and others (4). Recital work (2). Chapel work (six hymns).

Fourth Year.

Second and fifth positions. Technical studies in scales and thirds. Kayser etudes, second book, first half. Beginning ensemble work. Solos from Thomes, Schumann, Accolay, Raff and others (4). Recital work (2). Chapel work (six hymns). One sonata.

Fifth Year.

Fourth and sixth positions. Technical studies in positions and octaves. One concertino. Second half of Kayser's etudes Op. 20. Solos by Seitz, Rohm, Schumann, Goddard, Borowski, Raff, Seybold and others (5). Ensemble work. Chapel work (six hymns). Recital work (2).

Sixth Year.

All positions required. First book of Maza's etudes. Advanced technical studies for bowing. One easy concerto. Solos by Ern, Hauser, Sitt, Singelee, Papini and others (5). Chapel work (six hymns). Recital work (2).

HIGH SCHOOL COURSE.

First Year.

Schradieck's method of scales. Maza's etudes, Book 2. Study of arpeggios and chords. Solos by Simonetti, Schumann, Wieniawski, Viotti and others (6). Chapel work (six hymns). Recital work (2).

Second Year.

Schradieck's technical studies, Book 1. Maza's etudes (2). Kreutzer etudes (1). One sonata from Mozart or Haydn. Solos by Vieuxtemps, De Beriot, Bazzini or the old Italian school (2). Chapel work (six hymns). Recital work (2).

Third Year.

Sercik technical etudes. Kreutzer and Fiorillo etudes (2). One Bach study. One concerto by De Beriot, Viotti or Rode. One obligato to a song. One solo by any of the above composers. Chapel work (six hymns). Recital work (2).

Fourth Year.

Sercik technical studies. Kreutzer and Fiorillo and Rode's etudes (2). One Beethoven or Corelli sonata. One solo by a modern composer. Solos by Hubay, Vieuxtemps, Saint-Saens, Leonard, De Beriot, Spohr, or some modern composer (1). One composition learned alone in two months. Must teach two pupils. Graduating recital.

ORGAN.

HIGH SCHOOL COURSE.

First Year.

Pupil must have at least five years of piano and read braille music. Position at organ. Arrangement of organ and mechanical appliances. Name, character and position of stops. Stainer organ method (six studies). Technical work for pedals. Two hymns. Recital work (1).

Second Year.

Complete Stainer method. Pedal studies by Dudley Buck (3). Four hymns. One anthem. Two pieces. Chapel work. Ensemble work. Recital work (2).

Third Year.

Dudley Buck pedal studies (complete). Bach easy preludes and fugues (2). Six hymns. Three anthems. Four selected pieces. Chapel work. Recital work (2).

Fourth Year.

Bach prelude and fugue (1). Four selected pieces. One concerto or sonata. Six hymns. Four anthems. One composition learned alone in two months. Graduating recital.

CHORUS WORK.

Senior Choir—Two standard hymns. Four anthems. Four mixed choruses. One chorus from an opera or an oratorio or a complete cantata. Special songs for Thanksgiving, Christmas and Easter.

Junior Choir—Ten hymns. Season songs. Songs for two and three part study. Special songs for Thanksgiving, Christmas and Easter. Appear twice in recital work.

MANDOLIN COURSE.

First Year.

Reading braille. Finger exercises. Scale work. Easy solos (1). Recital (1).

Second Year.

First Book Henlein Method. Scale work. Technical studies. Solos (2). Recital (1).

Third Year.

First half of Second Henlein Method. Technical studies in third. Third and fifth positions. Solos by Lange, Tobani, Mascagni, etc. (2). Recitals (2).

Fourth Year.

Second half of Second Henlein Method. Technical studies in third and fifth positions. Solos by Lewis, Tobani, Singelee, Gillet (2). Concerted work (one composition). Recitals (2).

Fifth Year.

Technical studies in third and sixth. All major and minor scales. All positions. Concerted work (one composition). Solos by Lewis, Singelee or any modern composer (3). Recitals (2).

HIGH SCHOOL MUSIC.

YEAR.	ONE REQUIRED.	ONE ELECTIVE.	REQUIRED.	REQUIRED.	ELECTIVE.
NINTH YEAR.	Piano, Voice, Organ, Violin.	Piano, Mandolin, Voice, Flute, Organ, Clarinet, Violin, Horn.	Theory and Chorus.	Recital Work.	Literary or Industrial.
	Piano, Voice, Organ, Violin,	Piano, Mandolin, Voice, Flute, Organ, Clarinet, Violin, Horn.	Theory and Chorus.	Recital Work.	Literary or Industrial.
TENTH YEAR.	Piano, Voice, Organ, Violin.	Piano, Mandolin, Voice, Flute, Organ, Clarinet, Violin, Horn.	Theory and Chorus.	Recital Work.	Literary or Industrial.
	Piano, Voice, Organ, Violin.	Piano, Mandolin, Voice, Flute, Organ, Clarinet, Violin, Horn.	Theory and Chorus.	Recital Work.	Literary or Industrial.
ELEVENTH YEAR.	Piano, Voice, Organ, Violin.	Piano, Mandolin, Voice, Flute, Organ, Clarinet, Violin, Horn.	History and Chorus.	Recital and Chapel Work.	Literary or Industrial.
	Piano, Voice, Organ, Violin.	Piano, Mandolin, Voice, Flute, Organ, Clarinet, Violin, Horn.	History and Chorus.	Recital and Chapel Work.	Literary or Industrial.
TWELFTH YEAR.	Piano, Voice, Organ, Violin.	Piano Mandolin, Voice, Flute, Organ, Clarinet, Violin, Horn.	Normal Work and Chorus.	Chapel Work.	Literary or Industrial.
	Piano, Voice, Organ, Violin.	Piano, Mandolin, Voice, Flute, Organ, Clarinet, Violin, Horn.	Normal Work and Chorus.	Graduating Recital.	Literary or Industrial.

To graduate from the Music Department, a student must meet the requirements of the High School course, having carried the necessary preparatory work through the grades of this school or its equivalent in other schools.

Organ study must be preceded by at least five years' piano work. Chorus training, is required throughout the entire school course unless the student is unable to sing.

Forty credits are necessary to graduate. A credit equals one-half year's work of one recitation period daily with necessary preparation.

RECITAL DATES.

8:00 a. m.,	Thursday, November 16, 1911.
10:30 a. m.,	Wednesday, November 29, 1911.
3:30 p. m.,	Monday, December 11, 1911.
8:00 a. m.,	Friday, December 22, 1911.
11:10 a. m.,	Tuesday, January 9, 1912.
8:00 a. m.,	Wednesday, January 31, 1912.
3:30 p. m.,	Thursday, February 8, 1912.
9:00 a. m.,	Wednesday, February 21, 1912.
11:10 a. m.,	Monday, March 4, 1912.
8:00 a. m.,	Friday, March 15, 1912.
1:15 p. m.,	Thursday, March 28, 1912.
9:00 a. m.,	Monday, April 15, 1912.

INDUSTRIAL DEPARTMENT.

ZORA TOMLINSON, Broom and Chair Shop.*
 CLARA B. FRENCH, Girls' Sewing Room.
 B. F. SMITH, Piano Tuning.
 WILLIAM RHOADES, Sloyd.*

The Industrial Department is of general interest to the blind. The principal trades taught are broom making, chair caning, piano tuning, sewing, crocheting, ornamental bead work and basket making. This year the following articles were manufactured:

House brooms	910
Factory brooms	121
Toy brooms	19
Whisk brooms	25
Wing brushes	36
Chairs caned	60
Galvanized iron work, pieces	9
Sheets	54
Pillow cases	42
Towels	206
Table cloths	28
Napkins	167
Slippers, pairs	20
Table covers	3
Hoods	7
Mats	3
Baby boots, pairs	8
Jackets	10
Crocheted caps	21
Rattan and raffia, pieces	74
Bead work, pieces	124

*Chair, a. m.; Broom and Sloyd, p. m.

Diplomas will be given from the Industrial Department upon the fulfillment of the following requirements:

1. The completion of the work of the eight grades in the Literary Department.
2. The completion of the work indicated in the following schedule:

YEAR.	INDUSTRIAL—TWO HOURS DAILY.	ELECTIVE—THREE PERIODS DAILY.
NINTH YEAR.	Piano Tuning or Boys' Workshop, or Girls' Workroom.	Music or Literary.
	Piano Tuning or Boys' Workshop, or Girls' Workroom.	Music or Literary.
TENTH YEAR.	Piano Tuning or Boys' Workshop, or Girls' Workroom.	Music or Literary.
	Piano Tuning or Boys' Workshop, or Girls' Workroom.	Music or Literary.
ELEVENTH YEAR.	Piano Tuning or Boys' Workshop, or Girls' Workroom.	Music or Literary.
	Piano Tuning or Boys' Workshop, or Girls' Workroom.	Music or Literary.
TWELFTH YEAR.	Piano Tuning or Boys' Workshop, or Girls' Workroom.	Music or Literary.
	Piano Tuning or Boys' Workshop, or Girls' Workroom.	Music or Literary.

PROGRAM OF PHYSICAL TRAINING CLASSES.

COMMENCES.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	CLOSES.
9:00	Free exercises.	Free exercises.	Free exercises.	Free exercises.	Free exercises.	9:30
9:30	Free exercises.	Free exercises.	Free exercises.	Free exercises.	Free exercises.	10:00
10:00	Free exercises.	Free exercises.	Free exercises.	Free exercises.	Free exercises.	10:30
10:40	3's, 5's and 7's, girls. Aughinbaugh.	3's, 5's and 7's, girls. Aughinbaugh.	3's, 5's and 7's, girls. Aughinbaugh.	3's, 5's and 7's, girls. Aughinbaugh.	3's, 5's and 7's, girls. Aughinbaugh.	11:15
11:15	4's, 6's and 8's, girls. Crampton.	4's, 6's and 8's, girls. Crampton.	4's, 6's and 8's, girls. Crampton.	4's, 6's and 8's, girls. Crampton.	4's, 6's and 8's, girls. Crampton.	11:45
1:15	1's, girls and boys. Reynolds.	1's, girls and boys. Reynolds.	1's, girls and boys. Reynolds.	1's, girls and boys. Reynolds.	1's, girls and boys. Reynolds.	1:45
1:45	2's, girls and boys. Catherwood.	2's, girls and boys. Catherwood.	2's, girls and boys. Catherwood.	2's, girls and boys. Catherwood.	2's, girls and boys. Catherwood.	2:15
2:25	9's, 10's, 11's and 12's, girls. Hauk.	9's, 10's, 11's and 12's, girls. Hauk.	9's, 10's, 11's and 12's, girls. Hauk.	9's, 10's, 11's and 12's, girls. Hauk.	9's, 10's, 11's and 12's, girls. Hauk.	3:00
3:00	Free exercises.	Free exercises.	Free exercises.	Free exercises.	Free exercises.	4:00
6:15	3's, 4's, 5's and 6's, boys. Speth.	3's, 4's, 5's and 6's, boys. Speth.	3's, 4's, 5's and 6's, boys. Speth.	3's, 4's, 5's and 6's, boys. Speth.	3's, 4's, 5's and 6's, boys. Speth.	7:00
7:00	7's, 8's, 9's, 10's, 11's and 12's, boys. Speth.	7's, 8's, 9's, 10's, 11's and 12's, boys. Speth.	7's, 8's, 9's, 10's, 11's and 12's, boys. Speth.	7's, 8's, 9's, 10's, 11's and 12's, boys. Speth.	7's, 8's, 9's, 10's, 11's and 12's, boys. Speth.	7:45

GENERAL READING.

Each school day for a period of forty-five minutes, the teachers read from selected works to each grade.

The list of books is here given for the High School and Grades 7 and 8.

1912-13.	1913-14.	1914-15.
Genghis Khan: Abbott.	Cyrus: Abbott.	Xerxes: Abbott.
Adversity: Bacon.	On History Again: Carlyle.	History: Emerson.
Agamemnon: Aeschylus.	Electra: Sophocles.	Orestes: Euripides.
Heart of Midlothian: Scott.	Talisman: Scott.	Ivanhoe: Scott.
Oliver Twist: Dickens.	David Copperfield: Dickens.	Dombey and Son: Dickens.
Vanity Fair: Thackeray.	Pendennis: Thackeray.	Henry Esmond: Thackeray.
Middlemarch: Eliot.	Corinne: De Stael.	Adam Bede: Eliot.
Homo Sum: Ebers.	Anne of Geierstein: Scott.	Leila: Bulwer.
Rienzi: Bulwer.	Last of the Barons: Bulwer.	Zanoni: Bulwer.
Scarlet Letter: Hawthorne.	Hunchback of Notre Dame: Hugo.	Les Miserables: Hugo.
McLeod of Dare: Black.	Joshua: Ebers.	White Heather: Black.
Evangeline: Longfellow.	Paul Revere's Ride: Longfellow.	Snow Bound: Whittier.

CLOSING EXERCISES.

The Closing Concert was held on the evening of the sixth of June. A large and appreciative audience was present. The Concert was of the usual high order. The following is the program in full:

Joyous Serenade	<i>Gregg</i>
Orchestra Class	
La Fileuse	<i>Raff</i>
Lola Walling.	
Schottische Caprice	<i>Freising</i>
Harry Hubbard.	
Traum der Sennerin (Duet for flute and violin)	<i>Labitsky</i>
Fred Schwartz, Ralph Brown.	
Where are you going to, my pretty maid (Quartette)	<i>Caldicott</i>
Nellie DeArmond, Harry Hubbard, Pearl Rouch, Russell Harrison.	
Allegretto	<i>Guilmant</i>
Herman Wilson.	
(a) Andante Religioso	<i>Kohler</i>
(b) Gavotte	<i>Scotson Clark</i>
(String Quartette.)	
Ralph Brown, Nellie DeArmond, Mildred Huston, Mary Dugan.	
I Dreamt	<i>Schira</i>
Pearl Rouch.	
Etude Op. 10, No. 3	<i>Chopin</i>
Philip Schneider.	
Lovely Spring	<i>Coenen</i>
Bertha Carver.	
Pique Dame Overture	<i>Suppe</i>
Orchestra Class.	

PART TWO.

Hymn of Praise (Cantata)	<i>Mendelssohn</i>
1. Chorus—"All men, all things, all that has life and breath, sing to the Lord."	
2. Solo and Semi-chorus—"Praise thou the Lord, O my spirit."	
Solo—Nellie DeArmond.	

3. Recitative and Aria—"Sing ye praise, all ye redeemed of the Lord."

Harry Hubbard.

4. Chorus—"All ye that cried unto the Lord in Distress."

5. Duet for two Sopranos and Chorus—"I waited for the Lord."
Solos—Bertha Carver, Nellie DeArmond.

The Commencement was held on the evening of the fifth of June. Herman C. Wilson (music department) and Lydia W. Keller (industrial department) completed the courses prescribed and were granted diplomas by the Board of Trustees. The diplomas were presented by Vice-President O. D. Odell. Below is the Commencement Program:

Senata in E flat*Dudley Buck*
Allegro—Andante—Scherzo—Finale.

Chorus (From Hymn of Praise)*Mendelssohn*
Solos—Bertha Carver, Nellie DeArmond.

(a) Berceuse*Chopin*

(b) In the Woods*Gade*

(c) Etude Melodique*Raff*

HERMAN C. WILSON.

Prelude and Fugue Op. 37, No. 1*Mendelssohn*
HERMAN C. WILSON.

Mexico, Yesterday and Today*LYDIA W. KELLER*

Adoration (Violin)*Borowski*
Ralph Brown.

(a) Invocation*Guilmant*

(b) Elevation*Guilmant*

(c) Allegretto*Guilmant*

HERMAN C. WILSON.

Presentation of Diplomas*Rev. Owen D. Odell*

FINANCIAL.
APPROPRIATIONS.

FUND.	Act Approved.	Regular or Specific.	Amount Available During Year.	Expended During Year.	Balance.	
					Covered Into the State Treasury.	Available for Further Use.
Maintenance.....	March 9, 1909	Regular....	\$35,000 00	\$34,994 93	\$5 07
Repairs.....	March 9, 1909	Regular....	2,500 00	2,499 56	41
Industrial.....	March 9, 1909	Regular....	3,000 00	2,945 12	54 88
Library.....	March 9, 1909	Regular....	500 00	482 79	17 21
Boys' Dormitory, etc ..	March 9, 1909	Specific....	9 65		9 65
Total.....			\$41,009 65	\$40,922 40	\$87 25

EARNINGS AND SALES FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1911.

MONTHS.	Source of Receipt.				Total.
	Broom Shop.	Cane Shop.	Sewing Room.	Miscellaneous.	
October.....	\$34 60			\$3 65	\$38 25
November.....	40 85	\$0 90	\$4 03	7 25	53 03
December.....	26 80	4 00	11 45	40	42 65
January.....	18 55	20	3 05	4 25	26 05
February.....	16 50	1 25	7 41	1 75	26 91
March.....	17 40	3 55	8 04	8 75	37 74
April.....	27 90	2 55	3 23		33 68
May.....	36 95		9 60	6 82	53 37
June.....	20 73	2 35		5 63	28 71
September.....	43 55			14 00	57 55
Total.....	\$283 83	\$14 80	\$46 81	\$52 50	\$397 94

EXPENDITURES FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1911.

LIST OF VOUCHERS ALLOWED.

Maintenance.

October, 1910—

1.	J. F. Hennessey.....	Pay-roll.....	\$1,653 97
2.	George S. Wilson.....	Pay-roll.....	324 26
3.	Indianapolis Mortar & Fuel Co.....	Coal.....	636 44
4.	Kingan & Co.....	Meat and lard.....	287 05
5.	J. C. Perry & Co.....	Groceries.....	202 00
6.	W. M. Ball.....	Milk.....	128 34
7.	J. L. Keach.....	Fruits and vegetables.....	103 80
8.	Puritan Bed Spring Co.....	Mattresses.....	54 75
9.	Acme-Evans Co.....	Flour.....	48 20
10.	Armour & Co.....	Butterine.....	48 00
11.	Pettis Dry Goods Co.....	Supplies.....	41 70
12.	Pearl Street Produce Co.....	Eggs and poultry.....	38 42
13.	Polar Ice & Fuel Co.....	Ice.....	20 00
14.	M. C. Hunt.....	Soap and soda.....	21 44
15.	Bessire & Co.....	Supplies.....	22 65
16.	Indianapolis Light & Heat Co.....	Electricity.....	23 44
17.	Allen Taylor.....	Salary.....	25 00
18.	McCune, Wiles & Ross.....	Coffee.....	29 63
19.	American District Telegraph Co.....	Nightwatch.....	10 05
20.	West Disinfecting Co.....	Disinfectants.....	10 85
21.	C. C. Campbell.....	Butter.....	12 00
22.	George S. Wilson.....	Incidentals.....	14 67
23.	Crescent Paper Co.....	Paper.....	15 00
24.	Jerry Daniels.....	Salary.....	16 25
25.	Century Biscuit Co.....	Crackers.....	17 82
26.	Baur & Smith.....	Supplies.....	9 00
27.	Belt Elevator & Feed Co.....	Stable supplies.....	8 75
28.	Fairbanks, Morse & Co.....	Scales.....	7 90
29.	Ballard Ice Cream Co.....	Cream.....	6 25
30.	Indianapolis Water Co.....	Water.....	5 10
31.	Sanborn Electric Co.....	Lamps.....	5 00
32.	G. C. Campbell.....	Salary.....	4 03
33.	Central Union Telephone Co.....	Phone rent.....	3 33
34.	Jennie Ruble.....	Material and labor.....	2 50
35.	Indianapolis Gas Co.....	Gas.....	2 22
36.	Fleischmann Co.....	Yeast.....	1 88
37.	Carlin & Lennox.....	Supplies.....	1 70
38.	Standard Oil Co.....	Oil.....	1 60
39.	C. E. Allen.....	Horseshoeing.....	1 50
40.	Indianapolis News.....	Advertising.....	1 12
41.	Star Publishing Co.....	Advertising.....	1 08
42.	E. M. Crawford.....	Supplies.....	95
43.	Crane Co.....	Packing.....	3 40

\$3,873 04

November, 1910—

44.	F. F. Wiley.....	Pay-roll.....	\$1,685 77
45.	George S. Wilson.....	Pay-roll.....	271 53
46.	Indianapolis Mortar & Fuel Co.....	Coal.....	592 45
47.	Kingan & Co.....	Meat and lard.....	277 43
48.	J. C. Perry & Co.....	Supplies.....	244 55
49.	W. M. Ball.....	Milk.....	129 15
50.	J. L. Keach.....	Fruits and vegetables.....	73 82
51.	Swift & Co.....	Eggs and poultry.....	66 11
52.	Acme-Evans Co.....	Flour.....	58 20

Maintenance—Continued.

53.	Carlin & Lennox	Repairs and supplies	\$52 00
54.	Pettis Dry Goods Co.	Supplies	44 10
55.	McCune, Wiles & Ross	Coffee and pepper	30 43
56.	C. C. Campbell	Butter	24 00
57.	National Biscuit Co.	Crackers	17 99
58.	Indian Refining Co.	Oil	15 23
59.	Crescent Paper Co.	Paper	15 00
60.	Bash's Seed Store	Supplies	13 25
61.	Lilly & Stalnaker	Supplies	11 36
62.	West Disinfecting Co.	Disinfectants	10 50
63.	Indianapolis Light & Heat Co.	Light	10 35
64.	American District Telegraph Co.	Nightwatch	10 05
65.	Indianapolis Water Co.	Water	9 60
66.	George A. Nicholson	Fish and oysters	7 35
67.	Stokes Bros.	Medicine	6 50
68.	Edward Dupee	Drayage	6 00
69.	M. C. Hunt	Washing soda	5 60
70.	E. M. Crawford	Supplies	4 90
71.	Ballard Ice Cream Co.	Ice cream	4 50
72.	Strawmyer Bros.	Supplies	4 25
73.	Central Union Telephone Co.	Phone rent	3 33
74.	Indianapolis Gas Co.	Gas	1 68
75.	Fleischmann Co.	Yeast	1 63
76.	C. E. Allen	Horseshoeing	1 50
77.	Indianapolis News	Advertising	1 12
78.	Star Publishing Co.	Advertising	1 08
79.	Underwood Typewriter Co.	Rent of machine	1 00
80.	Armour & Co.	Butterine	48 00
81.	F. E. Janes Coal & Grain Co.	Supplies	26 00
82.	Crane Co.	Supplies	18 72
83.	George S. Wilson	Incidentals	10 46

 \$3,816 49

December, 1910—

84.	F. F. Wiley	Pay-roll	\$1,712 10
85.	George S. Wilson	Pay-roll	262 44
86.	George S. Wilson	Incidentals	9 95
87.	L. M. Dunlap	Salary and expenses	92 28
88.	F. F. Wiley	Salary and expenses	81 00
89.	A. C. Pilkenton	Salary and expenses	79 20
90.	J. F. Hennessey	Salary	55 00
91.	Owen D. Odell	Salary	8 06
92.	Indianapolis Mortar & Fuel Co.	Coal	557 26
93.	Kingan & Co.	Meat and lard	291 95
94.	J. C. Perry & Co.	Groceries	254 16
95.	James L. Keach	Fruits and vegetables	93 14
96.	Pettis Dry Goods Co.	Supplies	91 05
97.	John O'Neill	Flour	56 60
98.	Wm. B. Burford	Supplies	40 71
99.	McCune, Wiles & Ross	Coffee	35 25
100.	C. C. Campbell	Butter	30 15
101.	M. C. Hunt	Laundry supplies	21 38
102.	Bryce Baking Co.	Crackers	19 92
103.	West Disinfecting Co.	Disinfectants	10 85
104.	Indianapolis Telephone Co.	Telephone	10 00
105.	Daniel Stewart Co.	Supplies	7 44
106.	Indianapolis Light & Heat Co.	Electricity	7 07
107.	Standard Oil Co.	Oil	6 75
108.	Indianapolis Water Co.	Water	6 00
109.	Ballard Ice Cream Co.	Ice cream	5 45
110.	Belt Elevator & Feed Co.	Supplies	4 90
111.	Central Union Telephone Co.	Phone rent	3 33
112.	C. E. Allen	Horseshoeing	3 25

Maintenance—Continued.

113.	E. M. Crawford.....	Supplies.....	\$3 05
114.	M. H. Reisinger.....	Repairs.....	3 00
115.	Edward Dupee.....	Drayage.....	3 00
116.	Lilly & Stainaker.....	Supplies.....	2 98
117.	Carlin & Lennox.....	Supplies.....	2 30
118.	Indianapolis Gas Co.....	Gas.....	2 28
119.	Fleischmann Co.....	Yeast.....	1 50
120.	Indianapolis News.....	Advertising.....	1 14
121.	Star Publishing Co.....	Advertising.....	1 08
122.	Stokes Bros.....	Supplies.....	50
123.	American District Telegraph Co.....	Nightwatch.....	10 05
124.	W. M. Ball.....	Milk.....	126 70
125.	Swift & Co.....	Eggs and poultry.....	69 35
126.	Geo. A. Nicholson Fish & Oyster Co.....	Fish and oysters.....	5 01
			\$4,088 55
January, 1911—			
127.	F. F. Wiley.....	Pay-roll.....	\$1,711 48
128.	George S. Wilson.....	Pay-roll.....	272 00
129.	Indianapolis Mortar & Fuel Co.....	Coal.....	567 51
130.	Kingan & Co.....	Meat and lard.....	261 58
131.	J. C. Perry & Co.....	Groceries.....	249 91
132.	W. M. Ball.....	Milk.....	137 57
133.	Armour & Co.....	Butterine.....	72 00
134.	E. F. Shideler & Co.....	Fruits and vegetables.....	66 40
135.	McCune, Wiles & Ross.....	Supplies.....	58 80
136.	Pettis Dry Goods Co.....	Supplies.....	56 81
137.	John O'Neill.....	Flour.....	55 80
138.	M. C. Hunt.....	Supplies.....	25 97
139.	C. C. Campbell.....	Butter.....	24 26
140.	Swift & Co.....	Eggs and poultry.....	23 16
141.	Polar Ice & Fuel Co.....	Ice.....	20 00
142.	Bryce Baking Co.....	Crackers.....	16 50
143.	Remington Typewriter Co.....	Labor and supplies.....	14 55
144.	G. A. Nicholson Fish & Oyster Co.....	Fish and oysters.....	11 33
145.	E. M. Crawford.....	Supplies.....	10 15
146.	Indianapolis Water Co.....	Water.....	10 13
147.	American District Telegraph Co.....	Nightwatch.....	10 05
148.	West Disinfecting Co.....	Disinfectants.....	9 92
149.	Daniel Stewart Co.....	Medicines.....	7 43
150.	Indianapolis Light & Heat Co.....	Light.....	7 23
151.	F. E. Jones Coal & Grain Co.....	Stable supplies.....	7 05
152.	Ballard Ice Cream Co.....	Ice cream.....	5 60
153.	Central Union Telephone Co.....	Phone rent.....	3 33
154.	Carlin & Lennox.....	Repairs and supplies.....	3 25
155.	Indianapolis Gas Co.....	Gas.....	3 06
156.	Lilly & Stainaker.....	Supplies.....	2 30
157.	Indianapolis News.....	Advertising.....	1 60
158.	Fleischmann Co.....	Yeast.....	1 25
159.	Star Publishing Co.....	Advertising.....	1 08
160.	Strawmyer Bros.....	Supplies.....	10
161.	Geo. S. Wilson.....	Incidentals.....	14 80
			\$3,743 96
February, 1911—			
162.	F. F. Wiley.....	Pay-roll.....	\$1,624 00
163.	George S. Wilson.....	Pay-roll.....	272 00
164.	Indianapolis Mortar & Fuel Co.....	Coal, etc.....	291 12
165.	Kingan & Co.....	Meat and lard.....	270 94
166.	J. C. Perry & Co.....	Groceries.....	198 54
167.	William B. Burford.....	Supplies.....	171 89
168.	W. M. Ball.....	Milk.....	123 10
169.	Puritan Bed Spring Co.....	Mattresses.....	87 50

Maintenance -Continued.

170.	E. F. Shideler & Co.	Fruits and vegetables	\$72 55
171.	Pearl Roller Mills	Supplies	67 65
172.	Armour & Co.	Butterine	46 08
173.	McCune, Wiles & Ross	Coffee	34 50
174.	J. R. Budd Co.	Eggs and poultry	32 45
175.	Pettis Dry Goods Co.	Supplies	31 47
176.	C. C. Campbell	Butter	24 00
177.	Crescent Paper Co.	Paper	15 00
178.	M. C. Hunt	Soap	14 76
179.	Standard Oil Co.	Oil	12 77
180.	American District Telegraph Co.	Nightwatch	10 05
181.	Indianapolis Water Co.	Water	9 60
182.	Indianapolis Light & Heat Co.	Electricity	9 42
183.	West Disinfecting Co.	Disinfectants	8 96
184.	E. M. Crawford	Supplies	5 15
185.	Ballard Ice Cream Co.	Ice cream	5 10
186.	Carlin & Lennox	Repairs, etc.	4 25
187.	Daniel Stewart Co.	Candles	4 00
188.	Central Union Telephone Co.	Phone rent	3 33
189.	Indianapolis Gas Co.	Gas	2 58
190.	Edward Dupee	Drayage	2 00
191.	Indianapolis News	Advertising	1 60
192.	C. E. Allen	Horseshoeing	1 50
193.	Star Publishing Co.	Advertising	1 32
194.	Fleischmann Co.	Yeast	1 13
195.	Strawmyer Bros.	Supplies	20
196.	Bryce Baking Co.	Crackers	13 08
197.	George S. Wilson	Incidentals	12 93
			<hr/> \$3,486 52

March, 1911—

198.	F. F. Wiley	Pay-roll	\$1,738 65
199.	Geo. S. Wilson	Pay-roll	272 00
200.	Indianapolis Mortar & Fuel Co.	Coal	398 38
201.	Kingan & Co.	Meat and lard	294 46
202.	August M. Kuhn Co.	Groceries	189 59
203.	L. M. Dunlap	Salary and expenses	96 66
204.	F. F. Wiley	Salary and expenses	85 40
205.	A. C. Pilkenton	Salary and expenses	79 20
206.	O. D. Odell	Salary	75 00
207.	E. F. Shideler & Co.	Fruits and vegetables	66 70
208.	John O'Neill	Flour	54 60
209.	Armour & Co.	Butterine	46 08
210.	McCune, Wiles & Ross	Coffee	34 50
211.	C. C. Campbell	Butter	30 15
212.	Swift & Co.	Eggs and poultry	24 40
213.	Pettis Dry Goods Co.	Supplies	21 63
214.	M. C. Hunt	Laundry supplies	21 20
215.	Polar Ice & Fuel Co.	Ice	20 00
216.	Bryce Baking Co.	Crackers	19 77
217.	Wm. B. Burford	Supplies	15 95
218.	Indianapolis Water Co.	Water	11 14
219.	American District Telegraph Co.	Nightwatch	10 05
220.	Indianapolis Telephone Co.	Phone rent	10 00
221.	West Disinfecting Co.	Disinfectants	9 92
222.	Wm. Rouse & Sons	Supplies	8 55
223.	Indianapolis Light & Heat Co.	Electricity	6 75
224.	Edward Dupee	Drayage	6 00
225.	Ballard Ice Cream Co.	Cream	5 50
226.	Central Union Telephone Co.	Phone rent	3 33
227.	E. M. Crawford	Supplies	2 10
228.	Indianapolis Gas Co.	Gas	2 10
229.	Strawmyer Bros.	Supplies	2 00

Maintenance—Continued.

230.	C. E. Allen	Horseshoeing	\$1 50
231.	Indianapolis News	Advertising	1 44
232.	Fleischmann Co.	Yeast	1 38
233.	Star Publishing Co.	Advertising	1 20
234.	Albert Schiffing	Sharpening clippers	50
235.	Geo. S. Wilson	Incidentals	7 95
236.	W. M. Ball	Milk	146 74
237.	G. A. Nicholson Fish & Oyster Co.	Fish	3 70
238.	Indianapolis City Hospital	Services	110 80
			<hr/> \$3,936 97

April, 1911—

239.	F. F. Wiley	Pay-roll	\$1,629 00
240.	Geo. S. Wilson	Pay-roll	270 70
241.	August M. Kuhn Co.	Groceries	240 23
242.	E. F. Shideler & Co.	Fruits and vegetables	87 13
243.	Acme-Evans Co.	Flour	35 80
244.	Swift & Co.	Poultry and eggs	32 79
245.	Geiger-Tinney Co.	Coffee	27 36
246.	Adelaide Carman	Visiting for inspection schools for the blind	25 00
247.	C. C. Campbell	Butter	24 00
248.	Belt Elevator & Feed Co.	Supplies	23 72
249.	M. C. Hunt	Laundry supplies	21 80
250.	Polar Ice & Fuel Co.	Ice	20 00
251.	Crescent Paper Co.	Paper	15 00
252.	Indianapolis Light & Heat Co.	Electricity	14 37
253.	Pettis Dry Goods Co.	Merchandise	13 57
254.	Indianapolis Mortar & Fuel Co.	Coal	13 32
255.	American District Telegraph Co.	Nightwatch	10 05
256.	West Disinfecting Co.	Supplies	8 00
257.	Warren Seed Co.	Supplies	8 63
258.	Indianapolis Water Co.	Water	5 10
259.	C. B. Gutelius	Services	4 00
260.	Central Union Telephone Co.	Telephone	3 73
261.	Indianapolis Gas Co.	Gas	3 06
262.	Stokes Bros.	Antitoxine	2 50
263.	Edward Dupee	Hauling trash	2 00
264.	C. E. Allen	Horseshoeing	1 50
265.	Lilly & Stalnaker	Supplies	1 45
266.	Fleischmann Co.	Yeast	1 25
267.	Star Publishing Co.	Advertising	1 20
268.	E. M. Crawford	Supplies	90
269.	Kingan & Co.	Meat, lard and butterine	287 89
270.	W. M. Ball	Milk	137 71
271.	Bryce Baking Co.	Crackers	19 47
272.	Carlin Music Co.	Repairs and supplies	9 70
273.	Ballard Ice Cream Co.	Cream	3 10
274.	Indianapolis News	Advertising	1 60
275.	Geo. S. Wilson	Incidentals	9 30
			<hr/> \$3,015 93

May, 1911—

276.	F. F. Wiley	Pay-roll	\$1,864 80
277.	Geo. S. Wilson	Pay-roll	344 80
278.	J. C. Perry & Co.	Groceries	207 57
279.	Kingan & Co.	Meat, butterine and lard	292 84
280.	Indianapolis Mortar & Fuel Co.	Coal	148 79
281.	W. M. Ball	Milk	139 10
282.	James L. Keach	Fruits and vegetables	99 68
283.	Pearl St. Produce Co.	Eggs and poultry	42 30
284.	John O'Neill	Flour	36 20
285.	McCune, Wiles and Ross	Coffee and pepper	33 75
286.	C. C. Campbell	Butter	24 00

Maintenance—Continued.

287.	Indianapolis Light & Heat Co.	Electricity	\$24 00
288.	Pettis Dry Goods Co.	Supplies	21 59
289.	Polar Ice & Fuel Co.	Ice	20 00
290.	M. C. Hunt	Laundry supplies	20 00
291.	Bryce Baking Co.	Crackers	16 50
292.	Geo. S. Wilson	Incidentals	11 45
293.	American District Telegraph Co.	Nightwatch	10 05
294.	West Disinfecting Co.	Disinfectants	9 92
295.	Belt Elevator & Feed Co.	Feed supplies	6 95
296.	Indianapolis Water Co.	Water	5 10
297.	Indianapolis Gas Co.	Gas	4 56
298.	Standard Oil Co.	Oil	4 29
299.	C. E. Allen	Horseshoeing	3 40
300.	Central Union Telephone Co.	Phone rent	3 33
301.	M. H. Reisinger	Labor on pipe organ	2 00
302.	John Guedelhoefer Wagon Co.	Setting tires	1 75
303.	E. M. Crawford	Supplies	1 75
304.	Fleischmann Co.	Yeast	1 63
305.	Indianapolis News	Advertising	1 28
306.	Star Publishing Co.	Advertising	96
307.	Strawmyer Bros.	Supplies	50
308.	Lilly & Stalnaker	Rope	1 78
309.	Carlin Music Co.	Repairs	50
310.	Ballard Ice Cream Co.	Ice cream	7 23
			<hr/> \$3,414 35

June, 1911—

311.	F. F. Wiley	Pay-roll	\$506 00
312.	Geo. S. Wilson	Pay-roll	48 50
313.	Geo. S. Wilson	Incidentals	44 75
314.	L. M. Dunlap	Salary and expenses	94 53
315.	F. F. Wiley	Salary and expenses	81 00
316.	A. C. Pilkenton	Salary and expenses	79 90
317.	Owen D. Odell	Salary	75 00
318.	Pearl St. Produce Co.	Eggs and poultry	29 26
319.	W. B. Craig	Services	21 00
320.	Indianapolis Light & Heat Co.	Electricity	20 08
321.	Polar Ice & Fuel Co.	Ice	20 00
322.	M. C. Hunt	Laundry supplies	16 08
323.	American District Telegraph Co.	Nightwatch	10 05
324.	Indianapolis Telephone Co.	Telephone	10 00
325.	Lilly & Stalnaker	Hose	9 00
326.	Geiger-Tinney Co.	Coffee	8 88
327.	Belt Elevator & Feed Co.	Supplies	8 70
328.	Indianapolis Water Co.	Water	6 00
329.	Indianapolis Gas Co.	Gas	4 20
330.	E. M. Crawford	Supplies	3 45
331.	Central Union Telephone Co.	Phone rent	3 33
332.	C. E. Allen	Horseshoeing	2 75
333.	West Disinfecting Co.	Disinfectants	1 20
334.	John Guedelhoefer Wagon Co.	Setting tire	85
335.	Standard Oil Co.	Supplies	80
336.	Welsbach Co.	Supplies	60
337.	Strawmyer Bros.	Supplies	50
338.	F. E. Janes Coal & Grain Co.	Supplies	50
339.	Fleischmann Co.	Yeast	13
340.	Kingan & Co.	Meat and lard	119 95
341.	J. C. Perry & Co.	Groceries	53 25
342.	W. M. Ball	Milk	32 13
343.	Ballard Ice Cream Co.	Ice cream	11 09
344.	Frank Bird Transfer Co.	Drayage	6 00
345.	Edward Dupre	Drayage	5 50
346.	Indianapolis News	Advertising	1 00

Maintenance—Continued.

347.	Star Publishing Co.....	Advertising.....	\$96
348.	Bryce Baking Co.....	Crackers.....	68
349.	R. L. Craig.....	Supplies.....	6 85
350.	E. F. Shideler & Co.....	Fruits and vegetables.....	67 65
351.	C. C. Campbell.....	Butter.....	18 30

81,431 00

July, 1911—

352.	F. F. Wiley.....	Pay-roll.....	\$490 00
353.	Kingan & Co.....	Meat and lard.....	55 47
354.	Wm. B. Burford.....	Supplies.....	50 26
355.	Geo. S. Wilson.....	Pay-roll.....	48 50
356.	J. C. Perry & Co.....	Groceries.....	47 44
357.	Jas. L. Keach.....	Fruits and vegetables.....	46 26
358.	M. C. Hunt.....	Laundry supplies.....	20 90
359.	Pearl St. Produce Co.....	Eggs and poultry.....	17 26
360.	W. M. Ball.....	Milk.....	15 48
361.	Geo. S. Wilson.....	Incidentals.....	13 20
362.	Indianapolis Mortar & Fuel Co.....	Coal.....	10 52
363.	American District Telegraph Co.....	Nightwatch.....	10 05
364.	Geiger-Tinney Co.....	Coffee.....	9 37
365.	Pettis Dry Goods Co.....	Supplies.....	8 65
366.	R. L. Craig.....	Supplies.....	7 31
367.	C. C. Campbell.....	Butter.....	7 20
368.	Wm. Rouse & Son.....	Stable supplies.....	6 50
369.	Thos. Moffat.....	Supplies.....	4 50
370.	Indianapolis Light & Heat Co.....	Electricity.....	4 14
371.	Ballard Ice Cream Co.....	Cream.....	3 70
372.	Central Union Telephone Co.....	Phone rent.....	3 33
373.	Indianapolis News.....	Advertising.....	1 76
374.	W. B. Craig.....	Services.....	1 50
375.	Star Publishing Co.....	Advertising.....	1 44
376.	Indianapolis Water Co.....	Water.....	1 35
377.	West Disinfecting Co.....	Disinfectants.....	1 24
378.	Indianapolis Gas Co.....	Gas.....	1 20
379.	E. M. Crawford.....	Supplies.....	90
380.	Warren Seed Co.....	Supplies.....	45

\$889 88

August, 1911—

381.	F. F. Wiley.....	Pay-roll.....	\$490 00
382.	Geo. S. Wilson.....	Pay-roll.....	152 36
383.	Indianapolis Mortar & Fuel Co.....	Coal.....	75 55
384.	Kingan & Co.....	Meat and lard.....	61 31
385.	Allen Taylor.....	Salary.....	36 00
386.	James L. Keach.....	Fruits and vegetables.....	28 40
387.	J. C. Perry & Co.....	Groceries.....	20 85
388.	W. M. Ball.....	Milk.....	20 52
389.	R. L. Craig.....	Supplies.....	17 43
390.	Pearl St. Produce Co.....	Eggs and poultry.....	16 81
391.	Crescent Paper Co.....	Paper.....	15 00
392.	Indiana Reformatory.....	Supplies.....	13 50
393.	C. C. Campbell.....	Butter.....	13 12
394.	American District Telegraph Co.....	Nightwatch.....	10 05
395.	Indianapolis Telephone Co.....	Telephone rent.....	10 00
396.	Pettis Dry Goods Co.....	Supplies.....	9 14
397.	Geo. S. Wilson.....	Incidentals.....	8 13
398.	Indianapolis Belting & Supply Co.....	Supplies.....	5 60
399.	F. E. Jones Coal & Grain Co.....	Supplies.....	3 55
400.	Ballard Ice Cream Co.....	Cream.....	3 55
401.	E. M. Crawford.....	Supplies.....	3 40
402.	Indianapolis Light & Heat Co.....	Electricity.....	3 39
403.	Central Union Telephone Co.....	Phone rent.....	3 33
404.	Indianapolis Water Co.....	Water.....	2 70

Maintenance—Continued.

405.	Indianapolis News.....	Advertising.....	\$2 40
406.	Star Publishing Co.....	Advertising.....	1 80
407.	Vonnerut Hardware Co.....	Supplies.....	1 75
408.	West Disinfecting Co.....	Disinfectants.....	1 24
409.	Indianapolis Gas Co.....	Gas.....	1 02
			<hr/> \$1,032 20

September, 1911—

410.	F. F. Wiley.....	Pay-roll.....	\$810 20
411.	Geo. S. Wilson.....	Pay-roll.....	317 21
412.	Geo. S. Wilson.....	Incidentals.....	17 27
413.	Kingan & Co.....	Meat and lard.....	118 22
414.	L. M. Dunlap.....	Salary and expenses.....	95 16
415.	F. F. Wiley.....	Salary and expenses.....	83 40
416.	A. C. Pilkenton.....	Salary and expenses.....	79 90
417.	Owen D. Odell.....	Salary.....	75 00
418.	J. H. Ballman & Sons.....	Material and labor.....	176 50
419.	J. C. Perry & Co.....	Groceries.....	60 76
420.	A. Scherrer.....	Services.....	14 70
421.	Pearl St. Produce Co.....	Poultry.....	12 65
422.	American District Telegraph Co.....	Nightwatch.....	10 05
423.	Polar Ice & Fuel Co.....	Ice.....	10 00
424.	Geiger-Tinney Co.....	Coffee.....	9 87
425.	West Disinfecting Co.....	Disinfectants.....	7 45
426.	Belt Elevator & Feed Co.....	Supplies.....	5 25
427.	Central Union Telephone Co.....	Phone rent.....	3 33
428.	Allen Taylor.....	Salary.....	52 00
429.	Jas. L. Keach.....	Fruits and vegetables.....	40 41
430.	W. M. Ball.....	Milk.....	36 72
431.	Star Publishing Co.....	Advertising.....	1 32
432.	E. M. Crawford.....	Supplies.....	1 30
433.	Central Supply Co.....	Supplies.....	61
434.	Fleischmann Co.....	Yeast.....	50
435.	Indianapolis Light & Heat Co.....	Electricity.....	11 07
436.	Ballard Ice Cream Co.....	Ice cream.....	7 00
437.	Indianapolis Water Co.....	Water.....	2 70
438.	Indianapolis News.....	Advertising.....	1 92
439.	Remington Typewriter Co.....	Typewriters.....	140 00
440.	C. C. Campbell.....	Butter.....	24 15
441.	Armour & Co.....	Eggs and soap.....	22 48
442.	R. L. Craig.....	Supplies.....	14 75
443.	Indianapolis Gas Co.....	Gas.....	2 16
			<hr/> \$2,266 01

Total expenditures—Maintenance.....\$34,994 93

LIST OF VOUCHERS ALLOWED—INDUSTRIAL.

October, 1910—

1.	Zora Tomlinson.....	Salary.....	\$88 20
2.	C. B. French.....	Salary.....	63 00
3.	B. F. Smith.....	Salary.....	50 00
4.	Wm. Rhoades.....	Salary.....	47 25
5.	Pettis Dry Goods Co.....	Supplies.....	16 50
6.	Lilly & Stalnaker.....	Supplies.....	11 30

\$276 25

November, 1910—

7.	Pettis Dry Goods Co.....	Supplies.....	\$208 36
8.	Zora Tomlinson.....	Salary.....	92 40
9.	C. B. French.....	Salary.....	66 00
10.	B. F. Smith.....	Salary.....	55 00
11.	Wm. Rhoades.....	Salary.....	49 50
12.	Balke & Krauss Co.....	Lumber.....	29 98
13.	W. H. Surface & Co.....	Broom handles.....	11 50
14.	Barclay Walker.....	Grinder.....	5 00

\$517 74

December, 1910—

15.	Zora Tomlinson.....	Salary.....	\$92 40
16.	C. B. French.....	Salary.....	66 00
17.	B. F. Smith.....	Salary.....	50 00
18.	Wm. Rhoades.....	Salary.....	47 25

\$255 65

January, 1911—

19.	Zora Tomlinson.....	Salary.....	\$92 40
20.	C. B. French.....	Salary.....	66 00
21.	B. F. Smith.....	Salary.....	55 00
22.	Wm. Rhoades.....	Salary.....	49 50
23.	W. H. Surface & Co.....	Supplies.....	25 94
24.	Pettis Dry Goods Co.....	Napkins.....	13 25
25.	Daniel Stewart Co.....	Glue.....	3 56

\$305 65

February, 1911—

26.	Zora Tomlinson.....	Salary.....	\$84 00
27.	C. B. French.....	Salary.....	60 00
28.	B. F. Smith.....	Salary.....	50 00
29.	William Rhoades.....	Salary.....	45 00
30.	Pettis Dry Goods Co.....	Supplies.....	40 35
31.	Lilly & Stalnaker.....	Supplies.....	56

\$279 91

March, 1911—

32.	Zora Tomlinson.....	Salary.....	\$96 60
33.	C. B. French.....	Salary.....	69 00
34.	B. F. Smith.....	Salary.....	55 00
35.	William Rhoades.....	Salary.....	51 75
36.	W. H. Surface & Co.....	Supplies.....	25 32
37.	Geo. S. Wilson.....	Express.....	1 13
38.	Lilly & Stalnaker.....	Supplies.....	54

\$299 34

April, 1911—

39.	Zora Tomlinson.....	Salary.....	\$84 00
40.	C. B. French.....	Salary.....	60 00
41.	B. F. Smith.....	Salary.....	50 00
42.	Vonnegut Hardware Co.....	Supplies.....	10 42
43.	Wm. Rhoades.....	Salary.....	45 00

\$249 42

May, 1911—

44.	Zora Tomlinson.....	Salary.....	\$109 20
45.	C. B. French.....	Salary.....	78 00
46.	B. F. Smith.....	Salary.....	70 00
47.	Wm. Rhoades.....	Salary.....	51 75

Industrial—Continued.

48.	W. H. Surface & Co.	Supplies.	\$1 75	
49.	Pettis Dry Goods Co.	Napkins.	7 50	
50.	Vonnegut Hardware Co.	Supplies.	25	
				<hr/> \$324 46
June, 1911—				
51.	Wm. Rhoades.	Salary.	\$49 50	
				<hr/> \$49 50
July, 1911—				
52.	Maas-Neimeyer Lumber Co.	Lumber.	\$15 00	
				<hr/> \$15 00
August, 1911—				
53.	Jerry Daniels.	Salary.	\$22 50	
				<hr/> \$22 50
September, 1911—				
54.	Middleton Broom Works.	Broom corn.	\$225 00	
55.	William Rhoades.	Salary.	47 25	
56.	Jerry Daniels.	Salary.	32 50	
57.	Zora Tomlinson.	Salary.	16 80	
58.	B. F. Smith.	Salary.	15 00	
59.	C. B. French.	Salary.	12 00	
60.	Vonnegut Hardware Co.	Supplies.	1 15	
				<hr/> \$349 70
Total expenditures—Industrial.				<hr/> \$2,945 12

LIST OF VOUCHERS ALLOWED—REPAIRS.

October, 1910—				
1.	Pettis Dry Goods Co.	Papering and lin crusta.	\$150 35	
2.	Aldag Paint & Varnish Co.	Supplies.	119 23	
3.	Wm. J. Henson.	Salary.	65 00	
4.	Detroit Stoker Co.	Supplies.	46 98	
5.	P. W. Kennedy.	Material and labor.	38 10	
6.	Sargent Paint & Color Co.	Supplies.	16 30	
7.	Crane Co.	Supplies.	13 06	
8.	Vonnegut Hardware Co.	Supplies.	11 94	
9.	American Laundry Machinery Co.	Supplies.	7 40	
				<hr/> \$468 36
November, 1910—				
10.	J. E. Porter Co.	Supplies.	\$3 00	
11.	O. P. & J. F. Keely.	Labor and supplies.	79 36	
12.	Wm. J. Henson.	Salary.	67 50	
13.	Sargent Paint & Color Co.	Supplies.	17 15	
14.	Vonnegut Hardware Co.	Supplies.	6 86	
15.	Royse Electric Co.	Supplies.	3 93	
16.	Sinker-Davis Co.	Supplies.	3 50	
17.	Aldag Paint & Varnish Co.	Supplies.	2 90	
18.	John Guedelhoefer Wagon Co.	Labor and supplies.	2 35	
19.	Crane Co.	Supplies.	8 26	
				<hr/> \$194 81
December, 1910—				
20.	Wm. J. Henson.	Salary.	\$51 25	
21.	Vonnegut Hardware Co.	Supplies.	12 70	
22.	Crane Co.	Supplies.	12 17	
23.	Royse Electric Co.	Supplies.	4 88	
24.	Aldag Paint & Varnish Co.	Supplies.	4 65	
25.	Daniel Stewart Co.	Supplies.	3 15	
26.	Sargent Paint & Color Co.	Supplies.	1 61	
27.	Balke & Krauss Co.	Supplies.	1 50	
28.	John Guedelhoefer Wagon Co.	Supplies.	1 00	
				<hr/> \$92 91

Repairs--Continued.

January, 1911—

29.	Wm. J. Henson.....	Salary.....	\$58 75
30.	Pettis Dry Goods Co.....	Papering.....	35 16
31.	Lilly & Stalnaker.....	Supplies.....	11 13
32.	Balke & Krauss Co.....	Lumber.....	5 50
33.	Sargent Paint & Color Co.....	Supplies.....	3 40
34.	Central Supply Co.....	Supplies.....	1 24
35.	American Laundry Machinery Co.....	Supplies.....	75
36.	Vonnegut Hardware Co.....	Supplies.....	60
37.	Dean Bros. Steam Pump Works.....	Supplies.....	60
38.	John Guedelhoefer Wagon Co.....	Supplies.....	50
39.	Aldag Paint & Varnish Co.....	Paint.....	25

 \$117 88

February, 1911—

40.	Detroit Stoker Co.....	Stoker supplies.....	\$89 50
41.	Wm. J. Henson.....	Salary.....	55 00
42.	Sargent Paint & Color Co.....	Supplies.....	28 00
43.	Louis Rexroth.....	Repairs.....	4 80
44.	Crane Co.....	Supplies.....	1 01
45.	Vonnegut Hardware Co.....	Supplies.....	94

 \$179 25

March, 1911—

46.	Wm. J. Henson.....	Salary.....	\$66 25
47.	Balke & Krauss Co.....	Cement.....	16 00
48.	Aldag Paint & Varnish Co.....	Supplies.....	4 75
49.	Indiana Gravel Co.....	Gravel.....	3 75
50.	Sargent Paint & Color Co.....	Supplies.....	65

 \$91 40

April, 1911—

51.	Wm. J. Henson.....	Salary.....	\$62 50
52.	Maas-Neimeyer Lumber Co.....	Lumber.....	32 43
53.	Indianapolis Paint & Color Co.....	Supplies.....	24 05
54.	Sargent Paint & Color Co.....	Supplies.....	65
55.	Crane Co.....	Supplies.....	11 07

 \$130 70

May, 1911—

56.	Wm. J. Henson.....	Salary.....	\$63 50
57.	Sargent Paint & Color Co.....	Paint, etc.....	28 94
58.	H. C. Smither Roofing & Sheet Metal Co.....	Roofing.....	25 00
59.	Crane Co.....	Supplies.....	17 04
60.	Louis Rexroth.....	Repairing.....	11 80
61.	Indianapolis Paint & Color Co.....	Supplies.....	5 06
62.	Maas-Neimeyer Lumber Co.....	Lumber.....	8 00

 \$159 34

June, 1911—

63.	I. R. Sharp.....	Salary.....	\$80 00
64.	Wm. J. Henson.....	Salary.....	60 00
65.	Frank Cissell.....	Salary.....	50 00
66.	Lilly & Stalnaker.....	Supplies.....	35 80
67.	American Laundry Machinery Co.....	Supplies.....	10 50
68.	Maas-Neimeyer Lumber Co.....	Lumber.....	6 50
69.	Foster Lumber Co.....	Lumber.....	1 30
70.	Sargent Paint & Color Co.....	Supplies.....	90
71.	Crane Co.....	Supplies.....	48 38
72.	Aldag Paint & Varnish Co.....	Supplies.....	45

 \$293 83

July, 1911—

73.	I. R. Sharp.....	Salary.....	\$80 00
74.	Crane Co.....	Supplies.....	43 37
75.	Albert Gall Co.....	Papering.....	24 00
76.	Edward Dupee.....	Drayage.....	50
77.	J. E. Porter Co.....	Supplies.....	13 50

Repairs—Continued.

78	Indiana Gravel Co.....	Sand and gravel.....	\$5 00	
79	John Guedelhoefer Wagon Co.....	Supplies.....	3 90	
80	Indianapolis Mortar & Fuel Co.....	Cement.....	2 40	
81	Vonnegut Hardware Co.....	Supplies.....	93	
				\$173 60
August, 1911—				
82	Pettis Dry Goods Co.....	Papering.....	\$130 95	
83	I. R. Sharp.....	Salary.....	80 00	
84	J. H. Ballman & Sons.....	Labor and material.....	51 50	
85	Varney Electrical Supply Co.....	Supplies.....	11 73	
86	Indianapolis Belting & Supply Co.....	Supplies.....	4 05	
87	Indianapolis Mortar & Fuel Co.....	Cement.....	1 60	
88	Crane Co.....	Supplies.....	1 40	
89	Fall Creek Sand Co.....	Sand.....	1 25	
				\$282 48
September, 1911—				
90	J. H. Ballman & Sons.....	Labor and material.....	\$315 00	
				\$315 00
Total expenditures—Repairs.....				\$2,499 56

LIST OF VOUCHERS ALLOWED—LIBRARY.

October, 1910—				
1.	Indiana Young People's Reading Circle....	Books.....	\$21 80	
2.	Pettis Dry Goods Co.....	Books.....	14 67	
3.	James Clark & Co.....	Books.....	14 25	
				\$50 72
November, 1910—				
4.	Carlin & Lennox.....	Supplies.....	\$27 89	
5.	Illinois School for the Blind.....	Supplies.....	11 50	
6.	Perkin's Inst. & Mass. School for the Blind.	Braille music.....	6 41	
7.	William B. Burford.....	Supplies.....	2 00	
				\$47 80
December, 1910—				
8.	Wm. B. Burford.....	Supplies.....	\$9 93	
9.	Samuel J. Seifried.....	Supplies.....	9 00	
10.	W. K. Stewart Co.....	Books.....	1 70	
11.	Indianapolis News.....	Subscription.....	1 35	
12.	Pettis Dry Goods Co.....	Book.....	1 18	
13.	Crescent Paper Co.....	Paper.....	23 25	
				\$46 41
January, 1911—				
14.	E. M. Crawford.....	Dictionary.....	\$9 00	
15.	W. K. Stewart Co.....	Book.....	90	
				\$9 90
February, 1911—				
16.	American Association of Instructors of the Blind.....	Books.....	\$10 00	
17.	Joseph Gockel.....	Subscription.....	2 50	
				\$12 50
March, 1911—				
18.	Pettis Dry Goods Co.....	Magazines.....	\$31 25	
19.	R. L. Polk & Co.....	City Directory.....	6 00	
				\$37 25
April, 1911—				
20.	Kiger & Co.....	School supplies.....	\$6 00	
21.	Indianapolis News.....	Subscription.....	1 35	
22.	Carlin Music Co.....	Music.....	1 18	
23.	W. K. Stewart Co.....	Supplies.....	75	
				\$9 28

Library—Continued.

May, 1911—

24. Society for Providing Evangelical Religious Literature for the Blind.....	Subscriptions.....	\$22 50	
25. Joseph Gardner.....	Zinc.....	6 25	
26. Fulton-Evans Co.....	Supplies.....	1 75	
			\$30 50

August, 1911—

27. Indiana Young People's Reading Circle....	Books.....	\$20 95	
28. Star Publishing Co.....	Subscription.....	7 80	
29. Indianapolis News.....	Subscription.....	2 65	
			\$31 40

September, 1911—

30. Pettis Dry Goods Co.....	Books.....	\$207 03	
			207 03

Total expenditures—Library..... \$482 79

STATEMENT SHOWING AMOUNTS PAID INTO STATE TREASURY.

DATE.	Amount.	Number of Quietus.
November 1, 1910.....	\$38 25	2770
December 1, 1910.....	53 03	2964
January 3, 1911.....	42 65	3156
February 1, 1911.....	26 05	3279
March 1, 1911.....	26 91	3402
April 1, 1911.....	37 74	3618
May 1, 1911.....	33 68	3854
June 1, 1911.....	53 37	3994
July 1, 1911.....	28 71	4171
September 23, 1911.....	57 55	4332
Total.....	\$397 94	

SUMMARY OF EXPENDITURES, OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

Expend	October	November	December	January	February	March	April	May	June	July	August	September	Total
Maintenance	\$6,873 04	\$4,816 49	\$4,088 58	\$3,743 96	\$3,486 52	\$3,936 97	\$3,015 93	\$3,414 35	\$1,431 00	\$889 88	\$1,032 20	\$2,266 01	\$34,904 03
Industrial	276 25	517 74	255 65	305 65	279 91	299 34	249 42	324 46	49 50	15 00	22 50	349 70	2,915 12
Repairs	108 36	194 81	92 91	117 88	179 25	91 40	139 70	159 34	205 85	175 00	282 48	315 00	2,199 36
Library	50 72	17 80	16 11	9 90	12 50	57 25	9 28	30 50			31 40	207 03	482 79
Total	\$1,098 37	\$1,576 84	\$4,483 35	\$8,177 39	\$3,958 18	\$1,361 96	\$3,405 33	\$9,928 65	\$1,774 33	\$1,078 48	\$1,368 58	\$3,137 74	\$40,022 10

CLASSIFIED EXPENDITURES FOR THE TWELVE MONTHS ENDING SEPTEMBER 30, 1911.

(NOTE.—Figures in "Per Capita" column based on daily average attendance, which is 127.19.)

CURRENT EXPENDITURES.	Amount.	Per Capita.
<i>Administration.</i>		
Trustees or directors.....	\$1,188 06	\$9 34
Officers.....	4,783 00	37 61
Teachers (literary, music and physical training).....	6,567 00	51 63
Teachers (industrial).....	2,284 75	17 96
Attendants.....		
Domestics, laborers and other employes.....	7,555 55	59 41
Guards.....		
Total.....	\$22,378 36	\$175 95
<i>Subsistence.</i>		
Fresh meats.....	\$1,840 06	\$14 47
Salted meats and lard.....	705 23	5 55
Fish (fresh and cured), oysters, etc.....	27 39	22
Butter, eggs and poultry.....	1,010 35	7 94
Vegetables.....	535 79	4 21
Fresh fruits.....	310 45	2 44
Dried fruits.....	159 25	1 25
Canned goods.....	596 84	4 69
Breadstuffs, cereals, beans, etc.....	972 43	7 65
Vinegar and syrup.....	25 40	20
Tea, coffee and sugar.....	684 79	5 38
Milk.....	1,173 26	9 22
All other food supplies.....	326 93	2 57
Total.....	\$8,368 17	\$65 79
<i>Clothing, Etc.</i>		
Clothing.....		
Shoes.....		
Tailor and sewing room supplies.....		
Miscellaneous.....		
Total.....		
<i>Office, Domestic and Outdoor Departments.</i>		
School supplies.....	\$205 70	\$1 62
Library, newspapers, periodicals, etc.....	482 79	3 80
Stationery and printing.....	309 71	2 43
Industrial department.....	660 37	5 19
Furniture, fixtures, bedding and other household equipment.....	451 64	3 53
Laundry supplies, soaps and other cleaners.....	542 78	4 27
Medicines, instruments and other sick ward supplies.....	152 22	1 20
Postage, telegraph and telephone.....	148 39	1 17
Freight and transportation.....	108 56	85
Stable, farm, garden, provender, etc.....	190 00	1 49
Ice.....	130 00	1 02
Tobacco.....		
Music and amusements.....		
Expense of discharged inmates.....		
Fuel (coal and wood).....	3,290 84	25 87
Light (gas and electricity).....	171 43	1 35
Engineer's supplies.....	88 51	70
Water.....	74 52	58
Insurance.....		
Other classifications.....	668 85	5 26
Total.....	\$7,676 31	\$60 23
<i>Ordinary Repairs and Minor Improvements</i>		
Materials.....	\$795 74	\$6 26
Materials and labor.....	863 57	6 79
Labor.....	840 25	6 60
Total.....	\$2,499 56	\$19 65

CLASSIFIED EXPENDITURES—Continued.

CURRENT EXPENDITURES.		Amount.	Per Capita.
RECAPITULATION.			
Administration.....		\$22,378 36	\$175 95
Subsistence.....		8,368 17	65 79
Clothing, etc.....			
Office, domestic and outdoor departments.....		7,676 31	60 35
Ordinary repairs and minor improvements.....		2,499 56	19 65
Total.....		\$40,922 40	\$321 74
<hr/>			
<i>Earnings and Sales Paid Into the State Treasury, and Amounts Due from Counties for Clothing, Maintenance, Etc.</i>	Amount.	Per Capita.	
Earnings and sales paid into the State Treasury.....	\$397 94	\$3 13	
Amounts due from counties for clothing, maintenance, etc.....			
Total.....		397 94	3 13
Net cost to State.....		\$40,524 46	\$318 61

EXTRAORDINARY EXPENDITURES.

New buildings and furnishings.....	
Permanent improvements.....	
Land.....	
Total.....	

RECAPITULATION.

Current expenditures.....	\$40,922 40
Extraordinary expenditures.....	
Total.....	\$40,922 40

OFFICERS AND EMPLOYEES—REGULAR.

POSITION.	Number Employed.	Salary.	Additional Compensation. (Board, lodging, laundry, etc.)
Trustees.....	4	\$300 00 per year.....	Traveling expenses not to exceed \$125.00.
Superintendents.....	1	1,700 00 per year.....	Board, lodging and laundry for Superintendent and family. Noon meal.
Bookkeepers.....	1	85 00 per month (1).....	
Matrons.....	1	400 00 per year.....	
Assistant matrons.....	1	40 00 per month (1).....	Board, lodging and laundry.
Governesses.....	2	350 00 per school term (2).....	Board, lodging and laundry (3).
Assistant governesses.....	2	16 00 per month (4).....	Board, lodging and laundry (3).
Physicians.....	1	310 50 per school term (2).....	
Ushers.....	1	18 00 per month (4).....	Board, lodging and laundry (3).
Teachers.....	1	4 70 per day (4).....	
Teachers.....	1	4 45 per day (4).....	
Teachers.....	2	3 20 per day (4).....	
Teachers.....	8	3 00 per day (4).....	
Teachers.....	1	4 20 per day (4).....	
Teachers.....	1	450 00 per school term (2) (5).....	
Teachers.....	1	2 25 per day (4).....	
Engineers.....	1	80 00 per month (1).....	Noon meal.
Night engineers.....	1	50 00 per month (4).....	Board (3).
Firemen.....	1	30 00 per month (1).....	Board, lodging and laundry.
Coal wheelers.....	1	50 00 per month (2).....	
Florists.....	1	55 00 per month (1).....	Noon meal.
Laundresses.....	1	(85 00 per month for 8 months 75 00 per month for 4 months)	
Bakers.....	1	40 00 per month (6).....	Board, lodging and laundry (3).
Nightwatches.....	1	320 00 per school term (2).....	
Porters.....	1	30 00 per month (1).....	Board, lodging and laundry.
Cooks.....	1	22 50 per month (1).....	Board, lodging and laundry.
Cooks.....	1	22 50 per month (4).....	Board, lodging and laundry (3).
Assistant cooks.....	1	18 00 per month (4).....	Board, lodging and laundry (3).
Chambermaids.....	6	(13 00 per month first year..... 15 00 per month after first year.....)	Board, lodging and laundry (3).
Chambermaids.....	1	18 00 per month (1).....	Board, lodging and laundry.
Dining-room employes.....	5	(13 00 per month first year..... 15 00 per month after first year.....)	Board, lodging and laundry (3).
Dining-room employes.....	1	(13 00 per month first year..... 15 00 per month after first year.....)	Board, lodging and laundry.

(1) Employed for the year.

(2) Nine months.

(3) For time employed.

(4) Employed for the school term (9 months).

(5) Hours on duty equivalent to one-half school term (nine months).

(6) Employed for ten months.

TABULATED DATA.

YEAR.	Total Number Enrolled.	Graduates.		Discharged or With- drawn. Reasons.				Died.		Enrolled (Be- longing Close of Year).			Present Close of Year.		Daily Average Attendance.			Current Expendi- tures.	Balance.	Per Capita of Total Number Enrolled. (c.)	Per Capita of Current Ex- penditure. (d.)	
		M.	F.	Expelled.		Miscella- neous.		M.	F.	M.	F.	Tot.	M.	F.	M.	F.	Tot.					
				M.	F.	M.	F.															M.
1847.	25																		\$6,203 93	\$296 80	\$248 16	
1848.	28																		7,200 27	430 33	257 15	
1849.	38																		7,499 65	1,267 92	197 35	
1850.	52																		6,867 30	19 11	132 06	
1851.	52																		7,503 73	190 49	144 30	
1852.	51																		13,631 79	80 67	267 29	
1853.	46																		10,695 31	*1,844 60	232 50	
1854.	77																		13,978 34	3,178 01	181 53	
1855.	87																		19,794 31	15,568 80	227 52	
1856.	77																		24,663 59	8,858 52	316 41	
1857.	63																		17,597 89	*14,673 96	279 33	
1858.	53																		12,244 01	*24,543 48	231 01	
1859.	66																		18,251 28	*519 60	276 53	
1860.	63																		16,287 08	543 91	258 54	
1861.	77																		18,013 07	7,049 90	233 94	
1862.	95																		19,162 13	3,806 07	201 70	
1863.	96																		19,357 80	2 44	203 72	
1864.	103																		20,773 65	*19,593 40	201 10	
1865.	111																		29,751 01	3,276 04	268 02	
1866.	120																		33,340 08	8,223 15	277 83	
1867.	123																		33,852 36	20,353 54	274 98	
1868.	126																		33,076 65	15,220 03	262 51	
1869.	102																		47,646 40	663 78	467 10	
1870.	107																		36,244 97	113 15	338 73	
1871.	114																		34,640 72	966 48	303 86	
1872.	111																		34,087 06	1,883 54	307 09	
1873.	105																		39,793 66	2,381 23	378 98	
1874.	113																		38,235 55	46 70	338 36	
1875.	116																		34,183 79	78 49	294 68	
1876.	106																		31,331 57	1,246 02	295 58	
1877.	110																		32,208 44	1,853 83	292 80	
1878.	117																		31,404 96	1,395 52	268 41	
1879.	123																		26,307 48	46,781 40	213 88	
1880.	127	7	8																28,780 32	1,520 20	226 61	
1881.	126																		31,362 31	810 92	248 90	
1882.	128																		28,696 06	514 74	224 18	

**ESTIMATED VALUE OF ALL REAL ESTATE AND PERSONAL
PROPERTY BELONGING TO THE INDIANA SCHOOL
FOR THE BLIND, MADE SEPTEMBER 30, 1911.**

Real Estate.

1.680 feet on Meridian and Pennsylvania streets (in- cluding that occupied as city park).....	\$420,000 00
Main building	110,000 00
Engine house and laundry	4,000 00
Stable	1,500 00
Bakery building	1,000 00
Greenhouses and fixtures	2,000 00
Two lots in Crown Hill	600 00
Girls' dormitory	45,000 00
Boys' dormitory	60,000 00
	<hr/> \$644,100 00

Personal.

Boilers, tools, machinery, etc., in engine house.....	\$5,002 51
Machinery, etc., in laundry	383 94
Apparatus, etc., in bakery	58 65
Tools, etc., in broom and chair shop	227 56
Tools, etc., in sloyd department	90 00
Tools, etc., in tuning department	86 33
Machines, apparatus, etc., in girls' sewing room	336 64
Equipment in gymnasium	91 21
Plants, tools, etc., in greenhouses	664 95
Carriages, wagon, harness, horse, etc.	396 00
Furniture, household goods, etc.	8,072 90
School apparatus	577 80
Embossed books and maps	4,056 40
Printed books	2,292 30
Pianos, organs, horns, music, etc.	4,842 45
Supplies in household storeroom	361 55
Supplies in industrial storeroom	597 60
Typewriters	600 00
Safe, books and office equipment	240 00
	<hr/> \$28,978 79

Total (real and personal property)\$673,078 79

SUMMARY OF STATISTICS FOR THE YEAR ENDING SEPTEMBER, 30, 1911.

(Prepared in accordance with a resolution of the National Conference of Charities and Correction, adopted May 15, 1906.)

INDIANA SCHOOL FOR THE BLIND.

Population, 1910-11.

	<i>Male.</i>	<i>Female.</i>	<i>Total.</i>
Number of inmates present at the beginning of fiscal year	53	73	126
Number received during the year	16	16	32
Number discharged or died during year	12	18	30
Number belonging at end of fiscal year	57	71	128
Daily average attendance (<i>i. e.</i> , number of inmates actually present) during year	58.08	69.11	127.19
Average number of officers and employes during year	18	28	46

Expenditures, 1910-11.

	<i>Amount.</i>	<i>Per Capita. (c)</i>
Current expenses—		
Salaries and wages (a)	\$22,378 36	\$175 95
Clothing, etc. (b)		
Subsistence	8,368 17	65 79
Ordinary repairs (c)	2,499 56	19 65
Office, domestic and outdoor expenses (d)	7,676 31	60 35
Total	\$40,922 40	\$321 74
Extraordinary expenses—		
New buildings, furnishings for same, lands, etc. \$.....		
Permanent improvements to existing buildings.....		
Total	\$.....	

Recapitulation

Current expenses	\$40,922 40
Extraordinary expenses	
Total	\$40,922 40
Total expenditures	\$40,922 40
Earnings and sales	397 94
Net total expenses	\$40,524 46

a. Salaries and wages include salaries of trustees.

b. Clothing includes shoes and also materials for clothing and shoes made in the institution.

c. Ordinary repairs include all of those which simply maintain the buildings in the condition without adding to them. Any repairs which are of the nature of additions are classed with "permanent improvements."

d. This item includes everything not otherwise provided for, *e. g.*, furniture, bedding, laundry supplies, medicine, engineer's supplies, postage, etc.

e. Based on average attendance of 127.19.

LIST OF INSTITUTIONS FOR THE EDUCATION OF THE BLIND IN THE UNITED STATES.

- Alabama Institution for the Deaf, Dumb, and the Blind, Talladega, Ala.—
J. H. Johnson, Principal.
- Alabama School for the Blind, Talladega, Ala.—F. H. Manning, Superin-
tendent.
- Alabama School for Negro Deaf Mutes and Blind, Talladega, Ala.—J. S.
Graves, Superintendent.
- Arkansas School for the Blind, Little Rock, Ark.—S. D. Lucas, Superin-
tendent.
- California Institution for the Education of the Deaf and Dumb and Blind.
Berkeley, Cal.—Douglas Keith, Principal.
- Colorado School for the Deaf and the Blind, Colorado Springs, Colo.—W. K.
Argo, Superintendent.
- Connecticut School for the Blind, Hartford, Conn.—G. A. Marshall, Super-
intendent.
- Florida School for the Blind, Deaf and Dumb, St. Augustine, Fla.—A. H.
Walker, President.
- *Georgia Academy for the Blind, Macon, Ga.—C. F. Oliphant, Principal.
- Idaho State School for the Blind, Gooding, Idaho.—Paul Martin, Super-
intendent.
- Illinois School for the Blind, Jacksonville, Ill.—Robert W. Woolston, Super-
intendent.
- Indiana School for the Blind, Indianapolis, Ind.—Geo. S. Wilson, Super-
intendent.
- Iowa College for the Blind, Vinton, Iowa.—Geo. D. Eaton, Superintendent.
- Kansas School for the Education of the Blind, Kansas City, Kans.—W. B.
Hall, Superintendent.
- *Kentucky Institution for the Education of the Blind, Louisville, Ky.—B.
B. Huntoon, Superintendent.
- Louisiana Institution for the Blind, Baton Rouge, La.—W. W. Bynum.
Superintendent.
- *Maryland School for the Blind, Baltimore, Md.—John F. Bledsoe, Super-
intendent.
- Massachusetts School and Perkins Institution for the Blind, South Boston,
Mass.—E. E. Allen, Director.
- Michigan School for the Blind, Lansing, Mich.—Clarence E. Holmes, Super-
intendent.
- Minnesota School for the Blind, Faribault, Minn.—J. J. Dow, Superin-
tendent.
- Mississippi Institution for the Blind, Jackson, Miss.—W. S. Simms, M. D.,
Superintendent.
- Missouri School for the Blind, St. Louis, Mo.—S. M. Green, Superintendent.
- Montana School for the Deaf and Blind, Boulder, Mont.—L. E. Milligan,
President.
- Nebraska Institution for the Blind, Nebraska City, Neb.—R. C. King,
Superintendent.

*Has a department for the colored blind.

- New Mexico Institution for the Blind, Alamogordo, Otero County, New Mexico.—R. R. Pratt, Superintendent.
- New York Institution for the Blind, New York, N. Y.—Everett B. Tewksbury, Principal.
- New York State School for the Blind, Batavia, N. Y.—C. A. Hamilton, Superintendent.
- *North Carolina School for the Blind and Deaf, Raleigh, N. C.—John E. Ray, Principal.
- North Dakota School for the Blind, Bathgate, N. D.—B. P. Chapple, Superintendent.
- Ohio State School for the Blind, Columbus, Ohio.—Edward M. Vancleave, Superintendent.
- Oklahoma School for the Blind, Fort Gibson, Okla.—O. W. Stewart, Superintendent.
- Oregon Institute for the Blind, Salem, Oregon.—E. T. Moores, Superintendent.
- Pennsylvania Institution for the Instruction of the Blind, Overbrook, Pa.—O. H. Burritt, Superintendent.
- *South Carolina Institution for the Education of the Deaf and Blind, Cedar Springs, S. C.—N. R. Walker, LL.D., Superintendent.
- South Dakota School for the Blind, Gary, S. D.—Lelia M. Curl, Superintendent.
- *Tennessee School for the Blind, Nashville, Tenn.—J. V. Armstrong, Superintendent.
- Texas State School for the Blind, Austin, Texas.—J. H. Gillespie, Superintendent.
- Texas School for the Deaf, Dumb, and the Blind (Colored), Austin, Texas.—H. S. Thompson, Superintendent.
- Utah State School for the Blind, Ogden, Utah.—Frank M. Driggs, Superintendent.
- Virginia Institution for the Education of the Deaf and Dumb and of the Blind, Staunton, Va.—W. A. Bowles, Principal.
- Virginia School for Colored Deaf and Blind Children, Newport News, Va.—Wm. C. Ritter, Superintendent.
- Washington School for the Blind, Vancouver, Wash.—Geo. H. Mullin, Principal.
- Western Pennsylvania Institution for the Blind, Pittsburgh, Pa.—Thomas S. McAloney, Superintendent.
- West Virginia School for the Deaf and the Blind, Romney, W. Va.—R. Carey Montague, Principal.
- Wisconsin School for the Blind, Janesville, Wis.—J. F. Brown, Superintendent.

*Has a department for the colored blind.

INFORMATION.

1. The purpose of this institution is purely educational. The aim is to give a practical education to the young blind of both sexes residing in the State. All the common school branches are taught. An extensive course in music is available to all who have talent in this direction. A thorough course is given in several industrial trades, such as broom making, cane seating chairs, sloyd and piano tuning. The girls learn sewing by hand and machine, knitting, crocheting, bead and fancy work. The purpose is to make the pupils useful, contented, self-supporting citizens. A gymnasium is equipped and a special teacher drills the pupils in systematic physical exercises. Pupils when not in recitation are in charge of a governess. Neatly furnished hospitals are provided for the sick.

2. The school term (nine school months) commences on the fourth Wednesday of September and closes early in June. There is no vacation during the session.

3. Applicants who are under eight or over twenty-one years of age are not admitted.

4. No person of imbecile or unsound mind or of confirmed immoral character will be knowingly received in the school, and in case any pupils shall, after a fair trial, prove incompetent for useful instruction or disobedient to the regulations of the school, such pupils will be thereupon discharged.

5. The school is maintained by the State, and tuition, board and washing are furnished free of cost to all pupils residing in Indiana. The parents or friends of pupils must supply them with comfortable clothing, suitable for summer and winter wear, in such quantity as will admit of necessary changes. Each article of clothing should be distinctly marked with the owner's name, and must be sent in good condition. The traveling expenses of pupils must be defrayed by parents or friends.

6. It is positively required that every pupil shall be removed from the school during the annual vacation of the school, as well as at any other time when such removal may be deemed necessary by the proper officers thereof; and in case of failure of friends of any pupil to comply with this requisition, provision is made by

the law for sending such pupil to the trustee of the township in which he resides, to be by him provided for at the expense of the county.

7. Parties desiring the admission of a pupil are required to fill up the required form of application and forward the same to the superintendent of the school, giving truthful answers to the interrogatories therein contained, and procuring the signature of a justice of the peace to the certificate thereunto attached; and the pupil must in no case be sent until such application shall have been received and favorably responded to by the superintendent.

8. The superintendent will cheerfully give information in regard to the school, and will thankfully receive any information concerning those who should be receiving its benefits.

9. Persons bringing pupils to the school or visiting them cannot be accommodated with board and lodging.

10. That the work of the school may be done to the highest good of all, it is necessary that every pupil shall be present at the opening of the term. Faithful work and prompt and regular attendance are essential to advancement and promotion. No pupil who is tardy at the beginning of the term, is irregular in attendance or drops out before the close of the term can hope to do acceptable work and receive promotion. Unless there is an excellent reason for doing otherwise, every pupil should be present on the first day and remain throughout the term.

11. Each pupil before entering the school should be supplied with the following clothing of good quality:

Boys—Two hats, two suits of clothes, two extra pairs of pants, four pairs of socks or six pairs of stockings, four shirts, two suits of underwear, two pairs of shoes, six handkerchiefs, two pairs of suspenders, a tooth brush, a clothes brush and a comb and hair brush. Small boys need no suspenders, but should be supplied with an extra suit of underwear.

Girls—Two woolen and two cotton dresses, four aprons, three night dresses, two suits of summer and three of winter underwear, two dark and two light skirts, six pairs of stockings, six handkerchiefs, a wrap, a hat, rubbers, two pairs of shoes, a tooth brush, a clothes brush, a comb and hair brush.

This amount of clothing will be necessary within the year, that the children may be kept clean and comfortable. When parents are not able to furnish the required clothing, they should not hesitate to call upon the township trustee, who will cheerfully provide for the needs of those who are worthy. All clothing should be marked with indelible ink.

12. It will be necessary for parents, guardians, etc., to provide for all incidental expenses of pupils. It will likewise be necessary for all persons sending children to the school to furnish them transportation to their homes at the close of the term.

GENERAL.

Since the organization of this school in 1847, this State has provided generously for the education of her blind children of school age. No reasonable demand has been refused. It is only recently, however, that this State has indicated a purpose to give the same care to the prevention of blindness. Anyone who studies the records or investigates otherwise the causes of blindness among children will be startled at the number of cases which might have been prevented. Many are directly attributable to vice, ignorance or carelessness on the part of the nurse, physician or parent. While blindness may occur in families where the children have the best of care, yet the fact remains that the majority of children are blind unnecessarily. Of 856 pupils tabulated proportionately from each decade of the school's existence, the following are among the ascribed causes:

Congenital	313	Use of narcotics	16
Accidents	150	Nostrums	9
Scrofula	112	Fever	70
Measles	41		

Of these 711 cases perhaps more than 50 per cent. were inexcusable.

The following are the causes of blindness listed by the parents or guardians in the applications for the admission of the 157 pupils enrolled during the past fiscal year:

Congenital	18	"Mother fright"	1
Accidents	12	Spinal meningitis	3
Scrofula	7	Smallpox	1
Fever	4	"Strong medicine"	4
Measles	10	Conjunctivitis	1
Cataract	17	"Careless doctor"	4
Ophthalmia Neonatorum	13	Iritis	1
Granulated lids	4	"Far sightedness"	1
Inflammation	2	Lagrippe	2
Blood poison	1	"Near sightedness"	2
Ulcer	2	Hemorrhage	1
"Sore eyes"	6	Catarrh	1
Premature birth	1	Trachoma	1
Paralysis of optic nerve.....	3	Unknown	24
Sickness	5		

Many of the above are no doubt incorrect, yet a careful perusal of the list will convince anyone that many of these cases might have been prevented. It is gratifying to know that the State is

now fast realizing that it is cheaper and much better to prevent blindness than to care for the children after they are permitted to become blind. Recently much progress in this line has been made in Indiana. Now, no person who is "imbecile, epileptic, of unsound mind" or "who is afflicted with a transmissible disease" can marry legally (p. 216, Acts 1905). The marriage of cousins is forbidden (p. 97, Acts 1907). Physicians must not practice without license. More recently, very valuable laws to conserve sight have been enacted. The most important are (1) "An act to prevent infant blindness caused by the preventable disease known as Ophthalmia Neonatorum," (p. 324, Acts 1911), and (2) "An act entitled an act to protect and conserve the health and lives of school children and promote their efficiency by providing for their medical inspection and subsequent necessary treatment," (p. 485, Acts 1911). Very valuable results should come from the intelligent and vigorous enforcement of these laws. The only regret is that the medical inspection of all school children is "permitted and recommended," and is not made compulsory. Probably this defect will be corrected soon. The physicians themselves are doing much to promote such progressive legislation.

Sincerely,

GEORGE S. WILSON,
Superintendent.

TWENTY-SECOND ANNUAL REPORT

OF THE

Board of Trustees and Medical
Superintendent

OF THE

Eastern Indiana Hospital
for the Insane

AT

EASTHAVEN, NEAR RICHMOND

FOR THE

FISCAL YEAR ENDING SEPTEMBER 30, 1911

TO THE GOVERNOR

INDIANAPOLIS :

WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING

1912

THE STATE OF INDIANA.

EXECUTIVE DEPARTMENT,

DECEMBER 13, 1911.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,

INDIANAPOLIS, December 22, 1911.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,

Auditor of State.

DECEMBER 22, 1911.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,

Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, December 22, 1911.

L. G. ELLINGHAM,

Secretary of State.

Received the within report and delivered to the printer December 26, 1911.

ED. D. DONNELL,

Clerk Printing Board.

EASTERN INDIANA HOSPITAL FOR THE INSANE.

1911

BOARD OF TRUSTEES.

JOHN W. HANAN, Lagrange.....	President
JOHN DETAMORE, Portland.....	Vice-President
MEREDITH NICHOLSON, Indianapolis.....	Secretary
JOSEPH L. COWING, Rushville.....	Treasurer

OFFICERS.

SAMUEL E. SMITH, M. S., M. D.....	Medical Superintendent
LARUE D. CARTER, M. D.....	Senior Assistant Physician
OSCAR A. TURNER, M. D.....	Junior Assistant Physician
MARY WICKENS, M. D.....	Woman Physician
WILLIAM V. BOYLE, M. D.....	Medical Intern
JOHN P. THISTLETHWAITE.....	Steward
MINNIE YOUNG	Secretary
HARRY T. BEST.....	Apothecary
HENRY W. KASSLER	Storekeeper

BOARD OF TRUSTEES' REPORT.

HON. THOMAS R. MARSHALL, *Governor of Indiana*:

Sir—Conforming to the requirements of the law, the Board of Trustees of the Eastern Indiana Hospital for the Insane begs leave to respectfully submit the following report for the fiscal year ending September 30, 1911:

ORGANIZATION.

On November 12, 1910, Edward Barrett, having been recently elected to the office of State Geologist, resigned as trustee, and you appointed Meredith Nicholson as his successor to fill the unexpired term from November 12, 1910, to May 6, 1911. And later you appointed Mr. Nicholson for the full term of four years, to serve from May 6, 1911, to May 6, 1915.

On May 9, 1911, the board reorganized, and so continues to this date, as follows:

John W. Hanau.....	President
John Detamore	Vice-President
Joseph L. Cowing.....	Treasurer
Meredith Nicholson.....	Secretary

FINANCES.

The funds provided by the Legislature for the year were the three regular funds for maintenance, repairs and clothing, and a balance from the previous year in a specific fund for mechanical equipment.

The maintenance fund consisted of \$135,000 for 750 patients and an allowance of \$180 per annum for each patient in excess. It amounted in total to \$142,902.01, and was sufficient to maintain the institution quite satisfactorily. The cost of subsistence supplies was unusually high and the failure of some of the garden and products as the result of the drought in July necessitated unexpected and unusual expenditures both for kitchen vegetables and farm products. In consequence, it was necessary to reduce the usual annual outlay for the upkeep of the equipment. This situation, however, is unusual and it is hoped that an economy in some other direction in the ensuing year will be possible and permit us to make up this deficiency. The disbursements for maintenance were \$141,525.78, and an unexpended balance of \$1,376.23 was covered into the general fund of the state treasury.

The repair fund of \$7,500 was applied for the minor repairs of the structures and the mechanical equipment, all of which are in very good condition. The largest item of expenditure was for painting, which is continued with a varying force of two to four painters throughout the year. The disbursements were \$7,419.96, and a balance of \$80.04 was returned to the state treasury. The repair fund for the coming year is increased to \$9,000.

The disbursements from the clothing fund of \$6,000 were somewhat larger than usual on account of the transfer of so many patients to other hospitals. Before effecting these transfers it seemed proper to supply each with a good outfit of comfortable clothing, which involved an outlay of several hundred dollars. The total expenditures were \$5,991.38, and a balance of \$8.82 was returned to the state treasury. We regret that the Legislature of 1911 reduced this fund from \$6,000 to \$5,000.

A balance of \$1,633.68 in the specific fund for mechanical equipment, left from the previous year, was applied chiefly for improvements in the outside system of illumination. The enclosed arc lamps were replaced with tungsten groups on iron standards and the wires were run underground in conduits. The telephone system was also improved in certain detail. A balance of \$14.39 reverted to the general fund of the State treasury.

The earnings for the year were \$1,092.81 and were derived from the sale of rags, old iron, hides and the like. One item of \$800 resulted from the sale of some obsolete electrical apparatus.

The appended report of the medical superintendent contains fiscal tables setting forth in detail the receipts and disbursements of the year, from which the following summary is taken:

FISCAL YEAR 1910-11.

Drawn from State treasury.....		\$156,556 41
Disbursed for maintenance	\$141,525 78	
Disbursed for repairs	7,419 96	
Disbursed for clothing	5,991 38	
Disbursed for mechanical equipment.....	1,619 29	
Total	\$156,556 41	\$156,556 41
Maintenance—		
Appropriation for 750 patients.....		\$135,000 00
Excess for 43+ patients at \$180.....		7,902 01
Disbursements, Exhibits 2 and 3.....	\$141,525 78	
Covered into general fund	1,376 23	
Total	\$142,902 01	\$142,902 01

Repairs—

Appropriation		\$7,500 00
Disbursements, Exhibits 4 and 5.....	\$7,419 96	
Covered into general fund.....	80 04	
Total	\$7,500 00	\$7,500 00

Clothing—

Appropriation		\$6,000 00
Disbursements, Exhibits 6 and 7.....	\$5,991 38	
Covered into general fund.....	8 62	
Total	\$6,000 00	\$6,000 00

Specific Fund for Mechanical Equipment—

Appropriation		\$14,000 00
Disbursed, fiscal year 1909-10.....	\$12,366 32	
Disbursements, Exhibit 8.....	1,619 29	
Covered into general fund.....	14 39	
Total	\$14,000 00	\$14,000 00

Earnings—

Receipts from sales, Table K.....		\$1,092 81
Covered into general fund.....	\$1,092 81	
Total	\$1,092 81	\$1,092 81

Cost per capita for maintenance	\$178 27
Cost per capita for repairs	9 34
Cost per capita for clothing	7 54
Total cost per capita.....	\$195 15

Balances aggregating \$1,479.28 were covered into the general fund of the state treasury.

The inventory of real and personal property of September 30, 1911, shows a valuation of \$940,326.20.

GENERAL.

The enrollment of September 30, 1910, was 786; admitted during the year, 154; transferred from other hospitals, 93; discharged, 78; transferred to other hospitals, 62; died, 66; enrolled September 30, 1911, 827; daily average present, 793.8, and daily average enrolled, 811.8.

As the result of your proclamation of June 7, 1911, transferring the counties of Rush and Fayette from the eastern to the southeastern district for the insane, Madison and Grant counties

from the eastern to the central district, and Lagrange, Steuben, Noble, DeKalb and Huntington counties from the northern to the eastern district, sixty-two patients in this hospital and residents of Rush and Fayette counties were transferred to the South-eastern Hospital at Madison on August 3, 1911. On the following day ninety-three patients belonging to Huntington, Steuben and Lagrange counties were received from the Northern Hospital. Other transfers will be effected during the first month of the ensuing fiscal year in conformity with your modifying instructions of July 24, 1911. It is feared that these changes in the districts will not, when the transfers are finally completed, afford much relief to our overcrowded department for men, where relief is most needed. It is possible, however, that the pressure for the admission of men may be lessened in some degree by a reduction in the number of new applications from the smaller rural counties lately annexed to this district. The department for women will, under the new assignment of counties, as under the old, be ample to receive all the insane women of the urgent classes.

During the ensuing year certain improvements are contemplated and have already been planned, under the authority of specific appropriations for the medical equipment and sanitary betterment. These include a small clinical building for medical purposes; changes in some of the old plumbing, and sanitary floors where needed.

In conclusion we are gratified to report the general condition of the hospital as satisfactory throughout. Much good has been accomplished for the large number of unfortunates committed to the hospital's care, the sanitary conditions are of the first order, as shown by the high state of general health without epidemic of any kind, and the quality of the general service has been excellent.

Respectfully submitted,

JOHN DETAMORE,
J. W. HANAN,
MEREDITH NICHOLSON,
JOSEPH L. COWING,

Board of Trustees.

EASTHAVEN, November 14, 1911.

MEDICAL SUPERINTENDENT'S REPORT.

To the Board of Trustees:

Gentlemen—I beg leave to submit the following report of the hospital for the fiscal year ending September 30, 1911:

MOVEMENT OF PATIENTS.

	<i>Men.</i>	<i>Women.</i>	<i>Total.</i>
Enrolled September 30, 1910.....	394	392	786
Admitted during year.....	66	88	154
Transferred from other hospitals.....	44	49	93
Discharged	35	43	78
Recovered	15	20	35
Improved	17	23	40
Unimproved	3	0	3
Transferred to other hospitals.....	38	24	62
Died	31	35	66
Present September 30, 1911.....	395	419	814
Absent on furlough	5	8	13
Enrolled September 30, 1911.....	400	427	827
Average number present.....	393.2	400.6	793.8
Average number enrolled.....	401.1	410.7	811.8

MEDICAL HISTORY.

Since the opening of the hospital, August 1, 1890, 3,216 patients have been admitted, of whom 1,590 were men and 1,626 were women. Of this number, 732 were discharged as recovered, 521 improved, 66 unimproved, 12 idiotic, 16 not insane, 127 were transferred to other hospitals and 915 died while under treatment.

The whole number under treatment during the year was 1,033: 504 men and 529 women.

Admissions—During the year there were admitted by commitment 66 men, 88 women; total, 154; and by transfer from the Northern Hospital 44 men, 49 women; total, 93. Of the 154 admitted by commitment, 67 were classified as presumably curable. Of the curable conditions, 27, or 40 per cent., were cases of melancholia in acute forms; 32, or 47 per cent., were cases of mania in acute forms; 7, toxic insanity, and 1, acute confusional insanity. Of the incurable conditions, 22 were cases of chronic mania; 4, recurrent mania; 31, chronic dementia; 2, dementia with paralysis;

1, dementia with locomotor ataxia; 4, organic dementia; 12, parietic dementia; 8, paranoia, and 3, epileptic dementia.

Of the presumably curable cases, 11 were recurrent in character, of whom 10 were second admissions, and 1 was a third admission.

The ages of the 154 admitted cases are classified as follows: Seven were under 20 years, twenty-seven between 20 and 30 years, thirty-nine between 30 and 40 years, thirty-five between 40 and 50 years, twenty-five between 50 and 60 years, twelve between 60 and 70 years, and nine were over 70 years.

The duration of disease was less than one month in 9 cases, one to three months in 24 cases, three to six months in 16 cases, six to twelve months in 18 cases, one to two years in 31 cases, two to five years in 30 cases, and over five years in 27 cases. Thirteen of the admitted cases were foreign born.

Discharged Cases.—There were discharged during the year 35 men, 43 women; total, 78, not including transfers to other hospitals. Of these, 35 were recovered, 40 improved and 3 unimproved. The number recovered was 22.7 per cent. of the number admitted, 25 per cent. of the presumably curable cases under treatment, and 52.2 per cent. of the presumably curable cases admitted during the year.

The psychoses of those recovered were melancholia in 15 cases, mania in some of its forms in 17 cases, and toxic insanity in 3 cases.

The approximate ages of the recovered were as follows: Three under 20 years, nine between 20 and 30 years, seven between 30 and 40 years, five between 40 and 50 years, ten between 50 and 60 years, and one was over 60 years.

There were discharged improved 17 men, 23 women; total, 40; and unimproved, 3 women.

Transferred.—On August 3, 1911, sixty-two patients, thirty-eight men and twenty-four women, were transferred to the South-eastern Hospital at Madison. Of these, thirty-five were residents of Rush County and twenty-seven of Fayette County.

On August 4, 1911, ninety-three patients, forty-four men and forty-nine women, were received by transfer from the Northern Hospital at Logansport. Of these, fifty-one were residents of Huntington County, twenty-nine of Steuben County and thirteen Lagrange County.

Mortality Record.—During the year there were 66 deaths, 31 men and 35 women, or 6.4 per cent. of the whole number under treatment. Of these, 9, or 13.6 per cent., were cases of general paresis, and 4, or 6 per cent., were due to tuberculosis.

The appended medical tables contain additional medical statistics.

FINANCES.

The following funds were available for the fiscal year ending September 30, 1911:

Regular Funds—

Maintenance for 750 patients.....	\$135,000 00
Excess maintenance for 43 patients at \$180.....	7,902 01
Total maintenance fund.....	\$142,902 01
Repair fund	7,500 00
Clothing fund	6,000 00

Specific Fund—

Mechanical Equipment, balance from previous year.....	1,633 68
Total funds available.....	\$158,035 69

The disbursements were as follows:

Subsistence	\$48,816 39
Trustees' and officers' salaries.....	13,403 45
Attendants' wages	23,745 61
Employes' wages	19,913 56
Fuel, light and other expenditures.....	35,646 77
Repairs	7,419 96
Clothing	5,991 38
Specific—mechanical equipment	1,619 29
Total disbursements	\$156,556 41

Unexpended balances from the several funds amounting to \$1,479.28 were covered into the general fund of the state treasury.

Cost per capita for maintenance	\$178 27
Cost per capita for repairs	9 34
Cost per capita for clothing	7 54
Total cost per capita.....	\$195 15

The receipts from sales for the year amounted to \$1,092.81, as appears in Table K, and this sum was covered into the general fund of the state treasury in monthly reports to the Auditor of

State, as the law requires. Included in these earnings is an item of eight hundred dollars obtained from the sale of old electrical machinery.

The summary of the inventory of September 30, 1911, appears as Exhibit 10.

Maintenance.—This fund consisted of the regular appropriation of \$135,000 for 750 patients and an excess allowance of \$180 for each patient, amounting to \$7,902.01. The fund aggregated \$142,902.01, and the disbursements \$141,525.78. The unexpended balance of \$1,376.23 was covered into the general fund of the state treasury.

The increased cost of subsistence supplies was felt during the year and was the highest in the history of the institution. In consequence, the expenditures were limited to the necessities and the household equipment was not kept up as well as usual. The unfavorable summer season limited the garden products and made necessary the purchase of potatoes, usually grown on the premises, in part at least, at a high price throughout the summer months. While the equipment is somewhat deficient, the important needs of the year were supplied and a small balance was covered into the general fund of the state treasury, and no financial obligations existed at the end of the year. The maintenance fund for the ensuing year is the same in amount.

Repairs.—The fund available was \$7,500, the disbursements amounted to \$7,419.96, and a balance of \$80.04 was returned to the State treasury at the end of the year. The expenditures were \$2,066.32 for materials and \$5,333.64 for labor.

The minor repairs received prompt attention throughout the year, and no serious loss of any kind to structures or equipment was experienced. The usual force of painters continued the work of painting and varnishing throughout the year. During the winter season two painters were employed at inside work, and throughout the favorable seasons four were engaged at outside work. The cost for labor was \$2,211.40, and for materials \$552.03. A large amount of carpentry in small items of repairs and equipment was done by the head carpenter, assisted by patients' labor. Heretofore an additional carpenter was required, but during this year two efficient patients have rendered all necessary assistance. The cost for carpentry was \$1,325.56.

The annual inspection and repairs of roofs, including slate, tin and galvanized iron work, cost \$253.55.

The steam heating, hot and cold water, sewerage and electric systems were well kept up at a cost, for materials and labor, of \$3,012.46. Welch quarry tiles were purchased, but not laid, for three porches, at a cost of \$203.25, and certain grates were changed from gas to coal, \$112.06. The repair fund available for the ensuing year is \$9,000.

The clothing fund amounted to \$6,000, the disbursements \$5,991.38, and a balance of \$8.62 was returned to the state treasury. Unusual expenditures from this fund were necessary on account of the transfer of patients who required complete outfits of clothing. The fund for the ensuing year was reduced by the last Legislature to \$5,000.

Specific Fund.—A balance of \$1,633.68 in the specific fund for mechanical equipment, appropriated in 1909, remained from last year and was applied during the year for the betterment mainly of the electric plant. The outside enclosed arc system was changed by installing nineteen iron and two stone posts equipped with five tungsten lamps each. The wire was run underground in bituminized conduit. The unsightly wooden poles have all been removed and the grounds present a better appearance. The illumination is more diffuse and cost of current is reduced about one-half. Five additional posts will be installed during the coming year. The cost of these improvements was \$1,389.49. Additions were also made to the telephone system, laundry apparatus and engineer's tool equipment. The expenditures from this fund appear in Exhibit 8.

EASTERN DISTRICT FOR THE INSANE.

The Governor, in a proclamation of June 7, 1911, made certain changes in all the districts for the insane in the State. From this district, the counties of Rush and Fayette were transferred to the southeastern district, and Madison and Grant to the central district; and to this were transferred from the northern district the counties of Lagrange, Steuben, Noble, DeKalb and Huntington. The eastern district is now comprised of the following sixteen counties: Adams, Allen, Blackford, Delaware, DeKalb, Franklin, Henry, Huntington, Jay, Lagrange, Noble, Randolph, Steuben, Union, Wayne and Wells. The population of the district is 461,479, a reduction of 43,955 in population tributary to this hospital. The census of the insane in the State shows one insane person to five hundred of the normal population, and this being true there

are 916 insane in this district, and the normal capacity of this hospital is only 801.

The changes in the districts implied a transfer of patients from hospital to hospital to correspond with the rearrangement of the counties. It was at once apparent that if these transfers were fully effected the department for women in this hospital, which, on account of an incident of construction, is larger than the department for men, would have approximately seventy-five vacancies, and that in consequence the classification of patients in it would be seriously disordered. When this situation was presented, the Governor very considerably issued instructions, on July 24, 1911, authorizing the early transfer of men patients and a delay in the removal of the women patients to suit the convenience of this and the Northern Hospital. A sufficient number of women, therefore, will be detained for the present and transferred at some future time when their removal will not seriously impair the grouping in the department.

On August 3, 1911, sixty-two patients, thirty-eight men and twenty-four women, were transferred to the Southeastern Hospital at Madison. Of this number, twenty-seven were residents of Fayette County and thirty-five of Rush County. On the following day, August 4, 1911, ninety-three patients, forty-four men and forty-seven women, were received from the Northern Hospital. Of these, fifty-one were residents of Huntington County, twenty-nine of Steuben and thirteen of Lagrange County.

The transfers to the Central Hospital of all the men and part of the women in this hospital from Madison and Grant Counties will be effected during the first month of the ensuing fiscal year; and at once thereafter all the patients in the Northern Hospital from DeKalb and Noble Counties will be received here.

The transfer of so many patients is proving an arduous and costly undertaking, and it is hoped that when finally and fully effected the overcrowding in some of the hospitals, at least, may be relieved.

The capacity of the hospital remains 801, although the number present during the past two months has been as high as 822. To accommodate so many more than the normal capacity it is necessary, regrettable as it may be, to utilize all the beds in the hospital cottages.

There were 210 applications for admission during the year, and of this number 154 were admitted, 36 were suspended for want of room, 18 were withdrawn, and 2 were rejected as inad-

missible. The cases suspended were nearly all men, because the department for men, as heretofore, continued much overcrowded. For the same reason there was more or less delay in the admission of all men. The women, however, were received promptly, and only a few cases of epileptic and senile insanity were rejected or suspended.

The effect the changes in this district and the consequent transfer of patients will have on this hospital cannot now be definitely anticipated. It now appears, however, that only about fifteen vacancies in the department for men will be the net result, and that the new counties in the district may furnish a slightly smaller number of applications.

FARM AND GARDEN.

The farm and garden suffered from the midsummer drought and many of the products were smaller than usual. As a result of the shortage from a similar cause of the previous year it was necessary to purchase a larger amount of provender for the farm than usual, which increased considerably the cost of maintenance of the farm. The total value of the products for the year was \$15,391.59, and the cost was \$8,002.43.

The dairy has done well during the year and the herd is now made up of thirty-four cows, twenty-one heifers and one bull. The yield of milk was 25,895 gallons. The dairy barn was repaired during the past summer, and it, as well as all appurtenances, is in good condition. The silo was filled with 250 tons of corn ensilage late in September. The piggery yielded 27,909 pounds of dressed pork, valued at \$2,981.25. Of the 12,388 pounds of lard consumed, 9,308 pounds were produced. The fruit crop was much better than usual. The new apple orchard was too young to yield much, but the old orchard, although small, furnished a good supply for summer use. The vineyard of 1,600 vines yielded 15,511 pounds of grapes. The cherries were abundant, as were also the currants and strawberries.

The farm buildings are in good state of repair. Most of them were painted during the past season. A complete list of the farm and garden products appears as Table L.

ORGANIZATION.

It is a matter of gratification to report only one change on the staff of officers. Dr. Glenn E. Myers, medical interne, resigned his position February 4, 1911, after satisfactorily filling

his term of one year, to accept a similar position in the Manhattan State Hospital. This vacancy was filled by the appointment of Dr. William V. Boyle, who entered the service on July 4, 1911. All other officers remain and continue to discharge their duties faithfully and efficiently.

Likewise, the heads of all departments continue in their respective positions, much to my satisfaction and the welfare of the institution. Many changes, as heretofore, have occurred among the nurses, attendants and employes, but a sufficient number of the older and more experienced remain to maintain the established standard of the service.

I am grateful, and hereby express my appreciation to everyone, in whatever position, who has faithfully discharged the duties assigned and in any way contributed to the good record of the year's work.

In conclusion, I thank each and all members of the Board of Trustees for their confidence and support, and beg to assure them of my appreciation of their helpful coöperation for the general good in our common cause, as well as the cordial relations which make the meetings a bright spot in each month of the institution's history.

Respectfully submitted,

S. E. SMITH.

Medical Superintendent.

EASTHAVEN, November 14, 1911.

Medical Tables with Medical Superintendent's Report.

TABLE I.

MOVEMENT OF PATIENTS FROM AUGUST 1, 1890, to SEPTEMBER 30, 1911.

	<i>Men.</i>	<i>Women.</i>	<i>Total.</i>
Whole number admitted.....	1,590	1,626	3,216
Discharged	628	719	1,347
Recovered	336	396	732
Improved	238	283	521
Unimproved	36	30	66
Idiotic	4	8	12
Not insane	14	2	16
Transferred to other hospitals.....	70	57	127
Died	492	423	915
Remaining September 30, 1911.....	400	427	827

TABLE III.

RESULTS OF TREATMENT IN PRESUMABLY CURABLE CASES, FISCAL YEAR 1910-1911.

	Present at Beginning of Year.			Admitted During Year.			Transferred from Other Hospitals During Year.			Under Treatment During Year.			Discharged Recovered During Year.			Discharged Improved During Year.			Transferred to Other Hospitals During Year.			Average Length of Treatment of Recovered Cases (Last Attack).			Died During Year.			Average Duration of Insanity in Patients Deceased (Last Attack).			Transferred to Other Groups.			Remaining at Close of Fiscal Year.			
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Years.	Months.	Years.	Men.	Women.	Months.	Years.	Men.	Women.	Total.	Men.	Women.	Total.			
Melancholia, Acute Forms—																																					
First admission	15	14	29	8	16	24	2	1	3	25	31	56	6	8	14	2	4	6	1	1	2	8	9	17	1	1	2	1	1	2	3	1	1	13	11	24	
Second admission	5	5	10	1	2	3	1	7	8	1	1	2	..	1	1	4	2	2	1	2	3	..
Third admission	
Mania, Acute Forms—																																					
First admission	15	14	29	14	11	25	29	25	54	3	8	11	2	2	2	..	2	2	4	7	6	13	2	2	4	5	1	4	3	1	4	15	6	21
Second admission	6	2	8	2	4	6	8	6	14	2	2	4	1	1	1	..	1	1	2	9	6	15	1	1	2	2	1	2	1	4	2	2	4	..
Third admission	1	1	2	1	1	2	1	2	3	1	1	2	5
Acute Confusional Insanity—																																					
First admission	1	..	1	1	..	1	1	1	..	
Second admission	
Third admission	
Total	37	36	73	26	34	60	2	1	3	65	71	136	12	19	31	5	6	11	1	3	4	11	16	27	32	54

TABLE IV.

MOVEMENT OF POPULATION, CURABLE CONDITIONS, FISCAL YEAR 1910-1911.

	Present at Beginning of Year.			Admitted During Year.			Transferred from Other Hospitals During Year.			Whole Number Under Treatment.			Transferred to Other Groups.			Discharged and Died.			Transferred to Other Hospitals.			Remaining.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
Melancholia, simple	14	19	33	9	18	27	2	1	3	25	38	63	1	8	9	10	16	26	1	1	2	13	13	26
Melancholia, hypochondriacal	1		1	16	16	32				1		1										1		1
Mania, acute	22	17	39	1		1				38	33	71	10	8	18	11	14	25		2	2	17	9	26
Acute confusional insanity										1		1										1		1
Total	37	36	73	26	34	60	2	1	3	65	71	136	11	16	27	21	30	51	1	3	4	32	22	54

TABLE V.

RESULTS OF TREATMENT IN CURABLE CONDITIONS FOR SIXTEEN YEARS, NOVEMBER 1, 1895, TO SEPTEMBER 30 1911.

	Whole Number of Cases Present Nov. 1, 1895, and Admitted to Sept. 30, 1911.			Whole Number of Cases Discharged, Recovered.			Whole Number of Cases Discharged Improved and Unimproved.			Whole Number of Cases Died.			Whole Number of Cases Transferred to Other Hospitals.			Discharged Recovered.						Whole Number of Cases Transferred to Other Groups.			Remaining.			Percentage of Recovered on Whole Number Under Treatment.			Percentage of Deaths on Whole Number Under Treatment.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	On First Admission.			On Second Admission.			On Third Admission.			Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
																Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.									
Melancholia, simple	142	246	388	9	39	151	12	64	121	19	31	50	2	3	5	57	82	139	2	14	16	3	4	34	69	103	13	13	26	4	33	37	
Melancholia, stuporous	6	17	23	2	5	7	2	3	5	2	3	5	5	5	10	7	6	13	7	6	13	2	2	4	9	10	19	1	1	2	25	24	
Melancholia, with frenzy	20	27	47	7	6	13	3	3	6	3	9	12	7	6	13	7	6	13	7	6	13	2	2	4	9	10	19	1	1	2	47	32	
Melancholia, hypochondriacal	15	19	34	7	8	15	4	8	12	3	5	8	7	6	13	7	6	13	7	6	13	2	2	4	1	4	5	1	1	2	47	32	
Hystero-melancholia	4	4	8	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	10	5	
Dementia after melancholia	2	2	4	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	10	5	
Mania, acute	252	286	538	8	43	244	33	66	163	33	49	82	90	106	196	11	27	41	1	1	1	3	7	76	72	148	17	9	26	56	37		
Mania, acute exhaustive	6	4	10	1	1	2	6	3	9	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	10	5	
Hystero-mania	1	4	5	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	10	5	
Dementia, or mania	3	2	5	2	2	4	1	1	2	1	1	2	2	2	4	2	2	4	2	2	4	1	1	2	1	1	2	1	1	2	10	5	
Acute confusional Insanity	14	22	36	6	9	15	1	2	3	3	5	8	5	8	13	5	8	13	1	1	1	1	1	3	9	12	1	1	2	39	26		
Total	450	633	1083	91	277	468	68	99	167	88	119	207	4	6	10	169	219	388	17	44	61	5	7	12	126	174	300	32	22	54	29	9	

TABLE VI.

MOVEMENT OF POPULATION, INCURABLE CONDITIONS, FISCAL YEAR 1910-1911.

	Present at Beginning of Year.			Admitted During Year.			Transferred from Other Hospitals During Year.			Transferred from Other Groups.			Whole Number Under Treatment.			Transferred to Other Groups.			Transferred to Other Hospitals.			Discharged and Died.			Remaining.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
Mania, chronic	144	172	316	8	14	22	14	16	30	10	12	22	176	214	390	5	2	7	14	11	25	13	17	30	144	184	328
Mania, recurrent	8	12	20	4	4	8	8	16	24				8	16	24				1	1	2	2	3	5	5	13	18
Dementia, chronic	121	116	237	12	19	31	17	24	41	4	3	7	154	162	316	2		2	12	10	22	10	17	27	130	135	265
Dementia, monomania	3	4	7										3	4	7										3	4	7
Dementia with paralysis	4	2	6	1	1	2							3	3	6										3	3	6
Dementia with locomotor ataxia	1	1	2	1	1	2				1	1	2	1	1	2							4	2	6	2	4	6
Organic dementia	4	3	7	1	3	4				1	2	2	28	15	43				3		3	9	4	13	16	11	27
Parane dementia	20	6	26	6	6	12	2	1	3				34	31	65	1		1	2	2	2	2	1	3	29	30	59
Paranoia	26	23	49	4	4	8	4	4	8				22	21	43				4	4	4	2	2	4	16	19	35
Epileptic dementia	14	15	29	1	2	3	4	3	7	3	1	4	22	21	43												
Total	545	557	1,102	34	53	87	41	48	89	19	18	37	439	472	911	8	2	10	36	21	57	42	46	88	353	403	756

TABLE VII.

DIAGNOSIS OF THOSE ADMITTED, FISCAL YEAR 1910-1911.

<i>Diagnosis.</i>	<i>Men.</i>	<i>Women.</i>	<i>Total.</i>
Melancholia, simple	11	19	30
Mania, acute	16	16	32
Mania, chronic	22	30	52
Mania, recurrent	0	4	4
Dementia, chronic	29	43	72
Dementia, paretic	8	7	15
Dementia, organic	1	3	4
Dementia, epileptic	5	5	10
Dementia with paralysis	1	1	2
Dementia with locomotor ataxia	1	0	1
Paranoia	8	8	16
Toxic insanity	7	1	8
Acute confusional insanity	1	0	1
Total	110	137	247

TABLE VIII.

DURATION AND DIAGNOSIS OF THOSE RECOVERED, FISCAL YEAR 1910-1911.

DURATION.	Simple Melancholia.			Acute Mania.			Chronic Mania.			Toxic Insanity.			Total.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
Three months	1	3	4		1	1				1			1	1	2
Six months					3	3							1	6	7
Nine months		2	2	2	3	5							3	5	8
One year	1	1	2	1	2	3				1			2	3	5
Two years	3	1	4	1	1	2					1		5	3	8
Three years	1		1	1		1							2		2
Four years		2	2				1	1	1				1		1
Five years and over															
Total	6	9	15	6	10	16	1		1	2	1	3	15	20	35

TABLE IX.

APPROXIMATE AGES OF RECOVERED, FISCAL YEAR 1910-1911.

<i>Ages.</i>	<i>Men.</i>	<i>Women.</i>	<i>Total.</i>
Under twenty years.....	1	2	3
Between twenty and thirty years.....	3	6	9
Between thirty and forty years.....	5	2	7
Between forty and fifty years.....	0	5	5
Between fifty and sixty years.....	5	5	10
Over sixty years.....	1	0	1
	—	—	—
Total	15	20	35

TABLE X.

APPROXIMATE AGES AT DEATH, FISCAL YEAR 1910-1911.

<i>Ages.</i>	<i>Men.</i>	<i>Women.</i>	<i>Total.</i>
Under twenty years.....	0	0	0
Between twenty and thirty years.....	2	1	3
Between thirty and forty years.....	4	7	11
Between forty and fifty years.....	7	5	12
Between fifty and sixty years.....	10	4	14
Between sixty and seventy years.....	6	8	14
Over seventy years.....	2	10	12
	—	—	—
Total	31	35	66

TABLE XI—Continued.

Register Number	Sex	Age in Years at Death	Age at First Attack	Age at First Admission	Number of Admissions	Age at Last Admission	Duration of Last Attack	Duration of Life After First Attack	Nativity	Form of Disease	Cause of Death
618	Woman	67	37	37	2	41	26 years.	30 years.	Unknown	Chronic dementia	Acute enteritis.
2779	Woman	43	42	42	1	62	2 years.	1 9-12 years.	Michigan	Chronic dementia	Cerebral effusion.
2953	Woman	62	61	62	1	62	1 1-12 years.	1 1-12 years.	Ohio	Chronic dementia	Enterocolitis.
2509	Woman	38	34	35	1	35	4 6-12 years.	4 6-12 years.	Indiana	Paretic dementia	General paresis.
1531	Woman	56	43	43	2	46	10 years.	13 years.	Indiana	Chronic dementia	Acute cardiac dilatation.
2988	Woman	24	24	24	1	24	2-12 years.	2-12 years.	Indiana	Simple melancholia	Enterocolitis.
2723	Woman	63	44	44	1	44	19 years.	19 years.	Indiana	Chronic mania	Mitral insufficiency.
1524	Woman	35	25	25	1	25	10 years.	10 years.	Indiana	Chronic mania	Bronchopneumonia.
2984	Woman	73	32	32	1	32	2 years.	2 years.	Ireland	Paretic dementia	General paresis.
499	Woman	73	44	45	1	45	29 years.	29 years.	Indiana	Chronic dementia	Cerebral embolism.
2983	Woman	56	25	26	1	26	31 years.	31 years.	Indiana	Chronic dementia	Pleural hemorrhage.
2235	Woman	36	35	36	1	36	1 year.	1 year.	Indiana	Paretic dementia	Pleurar empyema.
2882	Woman	56	50	50	1	50	6 years.	6 years.	Indiana	Chronic mania	Bulbar paralysis.
2862	Woman	31	65	69	1	69	3 years.	3 years.	Indiana	Paretic dementia	General paresis.
1245	Woman	83	68	70	1	70	5 years.	5 years.	Ohio	Chronic dementia	Bronchopneumonia.
3040	Woman	74	71	74	1	74	15 years.	15 years.	Pennsylvania	Chronic dementia	General arteriosclerosis.
2765	Woman	61	58	59	1	59	3 years.	3 years.	Indiana	Chronic dementia	Cerebral hemorrhage.
3041	Woman	37	55	57	1	57	3 years.	2 years.	Indiana	Chronic mania	Chronic myeloiditis.
1068	Woman	37	23	23	1	23	14 years.	14 years.	Kentucky	Acute mania	Pulmonary tuberculosis.
2618	Woman	39	33	34	2	36	4 years.	6 years.	Indiana	Paranoia	Pulmonary tuberculosis.
2476	Woman	41	32	37	1	37	9 years.	9 years.	Ohio	Chronic dementia	Organic brain disease.
503	Woman	83	49	49	7	55	34 years.	34 years.	Indiana	Organic dementia	Brain tumor.
403	Woman	71	40	40	4	43	27 years.	30 years.	Ireland	Chronic mania	Chronic myeloiditis.
3048	Woman	48	44	44	2	48	3-12 years.	35 years.	Indiana	Simple melancholia	General arteriosclerosis.
1185	Woman	49	14	36	1	36	35 years.	35 years.	Indiana	Epileptic dementia	Leptomenitis.
3018	Woman	78	75	78	1	78	3-12 years.	3 5-12 years.	N. Carolina	Chronic dementia	Status epilepticus.
3021	Woman	58	56	58	1	58	2 5-12 years.	2 5-12 years.	West Virginia	Chronic dementia	Carcinoma of bladder.
3089	Woman	58	53	53	2	58	2-12 years.	5 years.	Indiana	Chronic mania	Ileus paralyticus.
2071	Woman	59	47	52	1	52	12 years.	12 years.	Indiana	Acute mania	Pulmonary tuberculosis.
3067	Woman	54	54	54	1	54	4-12 years.	4-12 years.	Iowa	Acute mania	Mitral insufficiency.
240	Woman	61	38	38	2	40	23 years.	23 years.	Indiana	Epileptic dementia	Diabetes mellitus.
2913	Woman	73	67	72	1	72	6 years.	6 years.	Germany	Chronic dementia	Bronchopneumonia.
3050	Woman	70	68	70	1	70	2 5-12 years.	2 5-12 years.	Ohio	Chronic dementia	Acute enteritis.
3066	Woman	47	46	47	1	47	1 5-12 years.	1 5-12 years.	England	Chronic dementia	Cerebral hemorrhage.
Averages		55.5	45.4	47	1.4	47.8	10 years.	11.3 years			Cerebral effusion.

TABLE XII.

MORTALITY RECORD FOR SIXTEEN YEARS, NOVEMBER 1, 1895,
TO SEPTEMBER 30, 1911.

	<i>Men.</i>	<i>Women.</i>	<i>Total.</i>
Whole number under treatment	1,348	1,428	2,776
Whole number died	406	361	767
AVERAGES.			
	<i>Men.</i>	<i>Women.</i>	
Average age at first attack (years)	41.5		44.1
Average age at first admission (years)	43.0		46.0
Average number of admissions.....	1.2		1.35
Average age at last admission (years).....	44.8		47.6
Average duration of last attack (years).....	7.4		9.4
Average duration of life after first attack (years).....	7.9		11.3
Percentage of deaths on whole number under treatment..	30.2		25.3

Fiscal Tables with Medical Superintendent's Report.

EXHIBIT 1.

SUMMARY OF RECEIPTS AND EXPENDITURES FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1911.

Maintenance—

Appropriation for 750 patients.....	\$135,000 00	
Allowance 43+ patients at \$180.....	7,902 01	
Disbursements, Exhibits 2 and 3.....	\$141,525 78	
Covered into general fund.....	1,376 23	
Total	\$142,902 01	\$142,902 01

Repairs—

Appropriation	\$7,500 00	
Disbursements, Exhibit 4 and 5.....	\$7,419 96	
Covered into general fund.....	80 04	
Total	\$7,500 00	\$7,500 00

Clothing—

Appropriation	\$6,000 00	
Disbursements, Exhibit 6 and 7.....	\$5,991 38	
Covered into general fund.....	8 62	
Total	\$6,000 00	\$6,000 00

Specific Fund for Mechanical Equipment..... \$14,000 00

Disbursements 1909-1910	\$12,366 32	
Disbursements 1910-1911, Exhibit 8.....	1,619 29	
Covered into general fund.....	14 39	
Total	\$14,000 000	\$14,000 00

Earnings—

Receipts from Sales, Table K.....	\$1,092 81	
Covered into general fund.....	\$1,092 81	
Total	\$1,092 81	\$1,092 81

EXHIBIT 2.

SHOWING CLASSIFIED EXPENDITURES ON ACCOUNT OF MAINTENANCE
FOR THE FISCAL YEAR ENDING SEP-
TEMBER 30, 1911.

Breadstuffs	\$4,786 04
Fresh meats	14,217 19
Groceries	967 51
Cured meats	3,803 50
Rolled oats, rice and hominy.....	2,164 37
Cheese	889 68
Poultry	2,075 65
Syrup and vinegar.....	783 42
Eggs	2,522 31
Butterine	3,470 41
Lard	384 32
Vegetables	4,034 45
Fresh fruits	498 83
Coffee	1,782 00
Sugar	3,721 45
Tea	247 84
Fish and oysters.....	486 62
Canned goods	753 90
Dried fruits	1,020 50
Buttermilk	206 40
Soap and sal-soda	796 49
Laundry supplies	479 66
Drugs and surgical instruments.....	1,232 60
Bedding	883 60
Dry goods	482 59
Carpets and curtains.....	453 49
Provender	2,485 77
Chambers	133 50
Hardware	103 68
Engineers' supplies	1,084 31
Farm implements and tools.....	643 65
Toweling	167 35
Oils	397 20
Coal	15,484 03
Cold store supplies.....	120 31
Blacksmithing	112 43
Seeds and roots	334 59
Queensware	372 47
Harness	59 45
House furnishings	424 41
Vehicles	219 19
Brooms, mops and brushes.....	375 78

EXHIBIT 2—Continued.

Library, newspapers and periodicals.....	\$156 85	
Live stock	703 56	
Furniture	286 45	
Kitchen and bakery machinery.....	242 48	
Salaries and wages.....	57,062 62	
Chaplain	105 00	
Freight and express charges.....	158 03	
Postage	350 00	
Telephones	194 67	
Traveling expenses	421 88	
Telegrams	42 16	
Tobacco	675 54	
Printing and stationery.....	883 41	
Electrical supplies	419 35	
Tinware	284 45	
Napery	382 93	
Cutlery	38 15	
Pipe and fittings.....	190 12	
Boiler supplies	440 23	
Cooking utensils	178 25	
Gas	107 09	
Music and musical instruments.....	57 06	
Advertising	63 32	
Amusements	252 94	
Lumber	190 04	
Insurance	393 35	
Woodenware and crockery	29 27	
Tools	7 00	
Keys, rings and chains.....	66 15	
Sanitary supplies	155 58	
Galvanized iron work	11 20	
Cement and tile	55 03	
Dentistry	9 25	
Fertilizers	304 34	
Wire goods	67 10	
Trees, shrubs and plants.....	67 00	
Electric light supplies	186 69	
Toilet paper	271 50	
Harvesting	218 43	
Flags and bunting	91 62	
Baling press	42 75	
Current expense		\$141,525 78
Total	\$141,525 78	\$141,525 78

EXHIBIT 3.

LIST OF VOUCHERS SHOWING DISBURSEMENTS ON ACCOUNT OF
MAINTENANCE FOR THE FISCAL YEAR ENDING
SEPTEMBER 30, 1911.

No.	To Whom Paid.	On Account of.	Amount
1.	S. E. Smith, Med. Supt.....	Monthly payroll.....	\$4,527 68
2.	Miller's Harness Store.....	Stable supplies.....	75
3.	Schneider's Carriage Factory.....	Work on phaeton.....	2 25
4.	L. N. Cox & Son.....	Blacksmithing	3 78
5.	Laemmle Film Service.....	Rental, moving pictures.....	4 00
6.	Julius Katte.....	Blacksmithing	4 41
7.	H. V. McLeland & Co.....	Fresh fruits.....	4 50
8.	Edgar A. Murray Co.....	Insecticide	5 00
9.	The Advance Co.....	Work on ammonia rods.....	5 09
10.	Vaughan's Seed Store.....	Flower seeds and bulbs.....	7 25
11.	The Fleischmann Co.....	Yeast	11 25
12.	Franklin MacVeagh & Co.....	Groceries	25 31
13.	W. B. Garver.....	Seed rye	25 50
14.	Ferd Grothaus.....	Furniture	28 75
15.	The Geo. H. Knollenberg Co.....	Dry Goods.....	31 32
16.	Standard Oil Co.....	Oils	37 04
17.	The Westinghouse Machine Co.....	Stoker parts.....	39 54
18.	George H. Nolte.....	Curtains	43 80
19.	The John W. Grubbs Co.....	Groceries	45 45
20.	Indiana Reformatory.....	Brooms	49 20
21.	J. M. Eggemeyer & Sons.....	Groceries	59 49
22.	Miller & Hart.....	Cured meats.....	78 84
23.	A. G. Luken & Co.....	Drugs and supplies.....	82 35
24.	Adam H. Bartel Co.....	Dry goods.....	86 52
25.	Jones Hardware Co.....	Chambers, hardware, fittings.....	94 43
26.	Bausch & Lomb Optical Co.....	Microscope	114 30
27.	Armour & Co.....	Butterine and cured meats.....	193 10
28.	Charley Hire.....	Stock pigs.....	242 19
29.	Edmund P. Thayer.....	Eggs	273 00
30.	George Schwegman.....	Chickens, lard, cured meats.....	414 78
31.	Champion Roller Milling Co.....	Breadstuffs and provender.....	423 00
32.	I. R. Howard & Co.....	Groceries	438 81
33.	The Interstate Coal Co.....	Coal	1,432 22
34.	Swift & Co.....	Fresh and cured meats.....	1,461 43
35.	H. V. McLeland & Co.....	Potatoes	1,606 54
36.	The Hoosier Mercantile Co.....	Queensware	3 75
37.	Nicholson & Brother.....	Library books.....	41 50
38.	S. E. Smith.....	Incidental expense.....	69 78
39.	The John Van Range Co.....	Kitchen fixtures.....	242 48
40.	S. E. Smith, Med. Supt.....	Monthly payroll.....	4,626 84
41.	Rhoads & Fillman.....	Napkins	2 13
42.	E. E. Turman.....	Cartage	3 75
43.	Lee C. Hoover.....	Veterinary services.....	5 00
44.	Schultz & Laning.....	Galvanized iron tubing.....	7 50
45.	Geo. W. Davis Carriage Co.....	Rubber tire.....	8 75
46.	The Fleischmann Co.....	Yeast	11 25
47.	Standard Oil Co.....	Engine oil.....	13 42
48.	W. M. Hoyt Co.....	Groceries	19 37
49.	The Laemmle Film Service.....	Rental, moving pictures.....	19 40
50.	William B. Burford.....	Printing	23 75

EXHIBIT 3—Continued.

No.	To Whom Paid.	On Account of.	Amount.
51.	Schwarzschild & Sulzberger Co....	Mess pork	\$47 00
52.	J. M. Eggemeyer & Sons.....	Groceries	51 28
53.	Fetta Water Softener Co.....	Chemicals	54 00
54.	The Geiger-Tinney Co.....	Tea	58 88
55.	Adam H. Bartel Co.....	Dry goods and notions.....	59 18
56.	J. H. Sterling.....	Oysters	59 50
57.	The John W. Grubbs Co.....	Groceries	64 78
58.	Henry Holzapfel.....	Tallow	76 16
59.	Miller & Hart.....	Cured meats.....	77 22
60.	Hollweg & Reese.....	Queensware	81 88
61.	A. G. Luken & Co.....	Drugs and druggists' sundries	90 10
62.	A. Booth & Co.....	Fresh fish.....	91 50
63.	H. V. McLeland & Co.....	Apples and cranberries.....	112 30
64.	Jones Hardware Co.....	Pipe, fittings and hardware..	122 37
65.	Mather Brothers Co.....	Coal	156 76
66.	T. L. Meyers.....	Cabbage	175 68
67.	Harry U. Wood.....	Electrical supplies.....	184 47
68.	Edmund P. Thayer.....	Chickens and eggs.....	400 80
69.	George Schwegman.....	Cured meats and lard.....	413 32
70.	Champion Roller Milling Co.....	Breadstuffs and provender...	430 50
71.	Armour & Co.....	Butterine and cured meats...	493 49
72.	H. V. McLeland & Co.....	Potatoes	1,029 33
73.	Swift & Co.....	Fresh meats.....	1,112 61
74.	I. R. Howard & Co.....	Sugar, coffee and groceries..	2,188 84
75.	The Interstate Coal Co.....	Coal and coke.....	2,204 08
76.	The Hoosier Mercantile Co.....	Lamp	50
77.	The Peter Johnson Co.....	Stove repairs.....	1 00
78.	W. H. Ross Drug Co.....	Photographic supplies.....	1 60
79.	Schneider's Carriage Factory....	Work on wagon.....	1 65
80.	The Geo. H. Knollenberg Co.....	Dry goods.....	3 75
81.	L. N. Cox & Son.....	Blacksmithing	3 78
82.	Julius Katte.....	Blacksmithing	4 68
83.	The McConaha Co.....	Plow shares.....	6 00
84.	Geo. H. Nolte.....	Curtains	14 85
85.	Miller's Harness Store.....	Stable supplies.....	15 30
86.	The Advance Co.....	Work on stokers.....	17 63
87.	Richmond Light, Heat & Power...	Gas for November, 1910.....	20 55
88.	Carson, Pirie, Scott & Co.....	Dry goods.....	36 77
89.	Westinghouse Machine Co.....	Furnace grates.....	51 93
90.	S. E. Smith.....	Incidental expense.....	96 44
91.	Western Electric Co.....	Electrical supplies.....	3 78
92.	Sprague, Warner & Co.....	Groceries, tobacco and soap..	465 56
93.	S. E. Smith, Med. Supt.....	Monthly payroll.....	4,676 20
94.	Edgar A. Murray.....	Insecticide	7 50
95.	The C. L. Greeno Co.....	Mattress tufts and twine....	8 70
96.	The Starr Piano Co.....	Piano bench.....	10 00
97.	Richmond Chair Co.....	Chair seats.....	11 00
98.	The Fleischmann Co.....	Yeast	11 25
99.	W. H. Barton.....	Buttermilk	19 20
100.	The Laemmle Film Service.....	Rental, moving pictures.....	20 00
101.	A. Booth & Co.....	Fresh fish.....	21 50
102.	Richmond Home Telephone Co....	Rental	26 00
103.	Carson, Pirie, Scott & Co.....	Dry goods.....	28 90
104.	M. A. Hasty.....	Candy	35 75
105.	L. E. Northrup.....	Testing dairy herd.....	44 41
106.	Weiss Furniture Co.....	Recaning chairs.....	52 85
107.	Meredith Nicholson, Trustee.....	Salary and expense.....	55 20
108.	Chas. T. Price & Sons.....	Oysters	68 75
109.	Henry Holzapfel.....	Tallow	70 80

EXHIBIT 3—Continued.

No.	To Whom Paid.	On Account of.	Amount.
110.	John Detamore, Trustee.....	Salary and expense.....	\$81 10
111.	H. V. McLeland & Co.....	Fruit and nuts.....	82 50
112.	Indiana Reformatory.....	Brooms and mop heads.....	83 40
113.	A. G. Luken & Co.....	Dispensary supplies.....	86 69
114.	J. L. Cowing, Trustee.....	Salary and expense.....	87 00
115.	J. W. Hanan, Trustee.....	Salary and expense.....	94 54
116.	Jones Hardware Co.....	Pipe, fittings and cutlery....	94 68
117.	Western Electric Co.....	Electrical supplies.....	103 26
118.	W. M. Hoyt Co.....	Groceries and beans.....	200 29
119.	Dougan & Co.....	Insurance	249 60
120.	Adam H. Bartel Co.....	Dry goods.....	277 23
121.	George Schwegman.....	Poultry and cured meats.....	303 40
122.	Sprague, Warner & Co.....	Dried fruit and soap.....	378 37
123.	Edmund P. Thayer.....	Chickens and eggs.....	428 50
124.	Armour & Co.....	Butterine and cured meats...	434 04
125.	Champion Roller Milling Co.....	Breadstuffs and provender...	445 00
126.	Franklin MacVeagh & Co.....	Canned and evaporated fruits	472 65
127.	I. R. Howard & Co.....	Groceries	627 49
128.	Swift & Co.....	Fresh meats.....	1,276 53
129.	E. N. Turman.....	Cartage	75
130.	The Advance Co.....	Work on wringer.....	2 40
131.	Schneider's Carriage Factory.....	Work on sleigh.....	2 75
132.	Oliver T. Knode.....	Work on drum.....	2 90
133.	American Laundry Machinery Co..	Rubbers for extractor.....	3 00
134.	L. C. Hoover.....	Veterinary services.....	5 00
135.	Quaker City Printing & Pub. Co..	Advertising	5 37
136.	The Item Newspaper Co.....	Advertising	6 84
137.	Palladium Printing Co.....	Advertising	7 35
138.	L. N. Cox & Son.....	Blacksmithing	7 38
139.	The Peter Johnson Co.....	Stove and trimmings.....	8 75
140.	Miller's Harness Store.....	Stable supplies.....	12 25
141.	Julius Katte.....	Blacksmithing	13 68
142.	The Geo. H. Knollenberg Co.....	Napery	15 00
143.	J. M. Eggemeyer & Sons.....	Groceries	39 82
144.	Mather Brothers Co.....	Lumber	1 32
145.	Standard Oil Co.....	Oils	43 49
146.	The E. G. Hill Co.....	Coal	132 53
147.	S. E. Smith.....	Incidental expense.....	94 70
148.	The Interstate Coal Co.....	Coal	4,128 14
149.	Light, Heat & Power Co.....	Gas for December.....	2 33
150.	S. E. Smith, Med. Supt.....	Monthly payroll.....	4,748 60
151.	Schneider's Carriage Factory.....	Work on wagon.....	75
152.	W. R. Ross Drug Co.....	Photographic supplies.....	1 00
153.	Nicholson Printing & Mfg. Co.....	Shelf paper.....	1 00
154.	Williams Tool Co.....	Pipe machine tools.....	2 43
155.	W. M. Hoyt Co.....	Groceries	9 26
156.	Sprague, Warner & Co.....	Groceries	9 98
157.	The Fleischmann Co.....	Yeast	10 00
158.	The John Van Range Co.....	Repairs for potato peeler....	10 50
159.	The Laemmle Film Service.....	Rental, moving pictures.....	16 00
160.	Robinson & Co.....	Tank truck	16 50
161.	W. H. Barton.....	Buttermilk	21 60
162.	Frank S. Betz Co.....	Electric sterilizers.....	22 00
163.	The E. G. Hill Co.....	Flower pots.....	24 52
164.	Geo. W. Davis Carriage Co.....	Rubber tires on carriages....	26 60
165.	Kellogg Switchboard & Sup. Co...	Telephone supplies.....	29 93
166.	Franklin MacVeagh & Co.....	Groceries	30 83
167.	Carson, Pirie, Scott & Co.....	Hassocks	40 18
168.	O. A. Kemper.....	Cabbage and onions.....	41 24

EXHIBIT 3—Continued.

No.	To Whom Paid	On Account of.	Amount.
169.	W. C. Rich.....	Straw	\$44 76
170.	P., C., C. & St. L. Railway Co.....	Freight on corn.....	49 23
171.	Armour Ammonia Works.....	Ammonia	52 78
172.	Fetta Water Softener Co.....	Chemicals	54 00
173.	A. G. Luken & Co.....	Drugs	65 76
174.	Schwarzchild & Sulzberger Co.....	Cured meats	81 00
175.	Jones Hardware Co.....	Pipe, fittings and hardware...	174 78
176.	George Schwegman.....	Poultry and cured meats...	290 60
177.	J. M. Eggemeyer & Sons.....	Eggs and groceries.....	305 83
178.	The Wayne Works.....	Grate bars and castings.....	326 10
179.	Armour & Co.....	Butterine and cured meats...	394 18
180.	Champion Roller Milling Co.....	Breadstuffs and provender...	421 50
181.	Indiana Village for Epileptics.....	Corn	508 53
182.	I. R. Howard & Co.....	Groceries and canned goods...	629 37
183.	The Interstate Coal Co.....	Coal	998 59
184.	Swift & Co.....	Fresh beef and cured meats...	1,209 68
185.	Advance Co.....	Work on shaft.....	1 15
186.	Julius Katte.....	Blacksmithing	2 15
187.	The Hoosier Mercantile Co.....	Queensware	3 80
188.	H. V. McLeland & Co.....	Fresh fruits	4 50
189.	L. N. Cox & Son.....	Blacksmithing	5 04
190.	Miller's Harness Store.....	Stable supplies.....	5 35
191.	The Geo. H. Knollenberg Co.....	Napery	12 72
192.	Light, Heat & Power Co.....	Gas for January, 1911.....	13 20
193.	Cash Beall.....	Cleaning curtains.....	3 50
194.	S. E. Smith.....	Incidental expense.....	79 13
195.	William B. Burford.....	Printing and stationery.....	197 81
196.	S. E. Smith, Med. Supt.....	Monthly payroll.....	4,694 24
197.	H. V. McLeland & Co.....	Fruit	4 50
198.	Adam H. Bartel Co.....	Dry goods.....	9 05
199.	Mather Bros. Co.....	Coke	9 69
200.	The Fleischmann Co.....	Yeast	10 00
201.	W. H. Duning.....	Adding machine stand.....	15 00
202.	The Laemmle Film Service.....	Rental, moving pictures.....	16 00
203.	W. H. Barton.....	Buttermilk	19 20
204.	Fry Bros.....	Hotbed sash.....	19 80
205.	Watchman's Time Detector Co.....	Clock dials.....	20 00
206.	Indiana Reformatory.....	Tinware	23 40
207.	Chas. H. Meyer.....	Farm tile.....	23 53
208.	Charley Hire.....	Boar pig.....	28 00
209.	Hollweg & Reese.....	Queensware	45 47
210.	Franklin MacVeagh & Co.....	Groceries	45 75
211.	Henry Holzapfel.....	Laundry supplies.....	45 92
212.	Frank E. Kirby & Co.....	Queensware	52 17
213.	Standard Oil Co.....	Oils	53 67
214.	The Yale & Towne Mfg. Co.....	Keys	56 65
215.	Carson, Pirie, Scott & Co.....	Dry goods.....	64 69
216.	O. A. Kemper.....	Cabbage	69 42
217.	Sprague, Warner & Co.....	Groceries	78 00
218.	The Geo. H. Knollenberg Co.....	Dry goods.....	83 76
219.	Peter Henderson & Co.....	Garden and flower seeds.....	118 02
220.	William B. Burford.....	Printing	146 57
221.	The J. L. Mott Iron Works.....	Sanitary fixtures.....	147 48
222.	A. G. Luken & Co.....	Drugs	148 99
223.	Schwarzchild & Sulzberger Co.....	Cured meats.....	177 63
224.	Jones Hardware Co.....	Hardware and glass.....	232 47
225.	George Schwegman.....	Cured meats and poultry....	292 92
226.	I. R. Howard & Co.....	Groceries, cheese and tobacco...	323 69
227.	Rhoads & Fillman.....	Dry goods and bedspreads...	381 00

EXHIBIT 3—Continued.

No.	To Whom Paid.	On Account of.	Amount.
228.	J. M. Eggemeyer & Sons.....	Groceries, eggs and potatoes.	\$398 49
229.	Champion Roller Milling Co.....	Breadstuffs and provender...	428 75
230.	Armour & Co.....	Meats and butterine.....	598 68
231.	Swift & Co.....	Fresh beef and cured meats...	1,053 95
232.	L. N. Cox & Son.....	Blacksmithing	63
233.	Schultz & Laning.....	Galvanized iron work.....	1 30
234.	Geo. W. Davis Carriage Co.....	Work on carriage.....	1 50
235.	Henry Vogt Machine Co.....	Work on ice dump.....	3 00
236.	Miller's Harness Store.....	Stable supplies.....	3 60
237.	Julius Katte.....	Blacksmithing	5 04
238.	Warren Webster & Co.....	Seal motors.....	10 56
239.	Fetta Water Softener Co.....	Work on float cans.....	11 20
240.	S. E. Smith.....	Incidental expense.....	88 18
241.	The Interstate Coal Co.....	Coal	819 95
242.	S. E. Smith, Med. Supt.....	Monthly payroll.....	4,682 42
243.	Burrough's Adding Machine Co...	Attention to machine.....	1 75
244.	William Shendler.....	Stable fertilizer.....	3 00
245.	E. N. Turman.....	Cartage	3 75
246.	The E. G. Hill Co.....	Flower pots.....	4 75
247.	Palladium Printing Co.....	Advertising	5 35
248.	Morning News.....	Advertising	5 37
249.	American Seeding Machine Co....	Work on grain drill.....	6 22
250.	Item Newspaper Co.....	Advertising	6 84
251.	Commercial Chemical Co.....	Color setter.....	8 00
252.	The Fleischmann Co.....	Yeast	11 25
253.	W. H. Barton.....	Buttermilk	19 20
254.	Frank Sasser.....	Sharpening lawn mowers....	20 00
255.	T. C. Taylor.....	Stable fertilizer.....	25 00
256.	Richmond Home Telephone Co....	Rental	26 00
257.	Miller & Hart.....	Cured meats.....	39 00
258.	Standard Oil Co.....	Oils	40 06
259.	William B. Burford.....	Printing and stationery.....	47 85
260.	Sprague, Warner & Co.....	Groceries	50 20
261.	Fetta Water Softener Co.....	Chemicals	54 00
262.	Geo. W. Davis Carriage Co.....	Work on carriage.....	55 00
263.	Indiana Reformatory.....	Brooms and mop handles....	56 40
264.	Peru Basket Co.....	Laundry baskets.....	62 50
265.	James Clark, Jr., Elec. Co.....	Electrical supplies.....	68 21
266.	A. Kiefer Drug Co.....	Dispensary supplies.....	68 76
267.	John Detamore, Trustee.....	Salary and expense.....	78 40
268.	Meredith Nicholson, Trustee.....	Salary and expense.....	83 10
269.	J. L. Gowing, Trustee.....	Salary and expense.....	90 00
270.	J. W. Hanan, Trustee.....	Salary and expense.....	102 76
271.	Franklin MacVeagh & Co.....	Groceries	104 84
272.	Carson, Pirie, Scott & Co.....	Dry goods.....	109 18
273.	The John W. Grubbs Co.....	Groceries	116 30
274.	Dougan, Jenkins & Co.....	Insurance	117 50
275.	Edmund P. Thayer.....	Chickens and eggs.....	298 40
276.	I. R. Howard & Co.....	Groceries	367 97
277.	Clark Brothers.....	Breadstuffs and provender...	441 25
278.	Armour & Co.....	Butterine and meats.....	512 56
279.	Swarzschild & Sulzberger Co....	Fresh beef and cured meats...	680 38
280.	W. B. Garver.....	Cleaning seed.....	75
281.	Western Electric Co.....	Electrical supplies.....	2 36
282.	Ferd Grothaus.....	Chair seats.....	3 40
283.	Nicholson Printing & Mfg. Co....	Stitching reports.....	3 75
284.	Julius Katte.....	Blacksmithing	4 12
285.	H. V. McLeland & Co.....	Fresh fruits.....	4 50
286.	Advance Co.....	Work on extractor.....	4 63

EXHIBIT 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
287.	Miller's Harness Store.....	Stable supplies	\$5 90
288.	Mather Brothers Co.....	Lime	6 25
289.	Hoosier Mercantile Co.....	Queensware	6 60
290.	The Peter Johnson Co.....	Stove	7 00
291.	Geo. C. Ferling.....	Veterinary services.....	8 50
292.	C. S. Wilson.....	Dental work.....	9 25
293.	The Geo. H. Knollenberg Co.....	Dry goods.....	10 00
294.	Schneider's Carriage Factory.....	Work on delivery wagon.....	10 15
295.	Light, Heat & Power Co.....	Gas for March, 1911.....	20 40
296.	L. N. Cox & Son.....	Blacksmithing	22 15
297.	A. G. Luken & Co.....	Dispensary supplies.....	29 52
298.	J. M. Eggemeyer & Sons.....	Groceries	45 17
299.	S. E. Smith.....	Incidental expense.....	80 73
300.	Weiss Furniture Co.....	Recaning chairs.....	61 30
301.	Booth Fisheries Co.....	Fresh fish.....	70 10
302.	Clendenin Fertilizer Co.....	Fertilizer	96 00
303.	Adam H. Bartel Co.....	Bedding and furnishings.....	151 60
304.	George Schwegman.....	Cured meats.....	162 75
305.	Jones Hardware Co.....	Hardware and fittings.....	217 99
306.	Fairbanks, Morse & Co.....	Spraying outfit.....	316 07
307.	The Interstate Coal Co.....	Coal	1,094 08
308.	S. E. Smith, Med. Supt.....	Monthly payroll.....	4,623 54
309.	L. N. Cox & Son.....	Blacksmithing	2 52
310.	Miller's Harness Store.....	Stable supplies.....	3 00
311.	E. N. Turman.....	Cartage	3 00
312.	H. V. McLeland & Co.....	Fresh fruits.....	4 50
313.	Western Electric Co.....	Electrical supplies.....	5 30
314.	Julius Katte.....	Blacksmithing	7 81
315.	The Laemmle Film Service.....	Rental, moving pictures.....	8 00
316.	W. B. Garver.....	Sweet potato seed.....	10 50
317.	The Fleischmann Co.....	Yeast	11 25
318.	Schultz & Laning.....	Tinware	12 55
319.	Frank S. Betz Co.....	Thermometers	15 00
320.	Geo. H. Nolte.....	Mattings and curtains.....	20 09
321.	Franklin MacVeagh & Co.....	Groceries	21 29
322.	The Geo. H. Knollenberg Co.....	Napery and towels.....	21 33
323.	W. H. Barton.....	Buttermilk	21 60
324.	Hollweg & Reese.....	Queensware	24 05
325.	Mather Brothers Co.....	Shelving and boxes.....	30 57
326.	Adam H. Bartel Co.....	Dry goods.....	34 92
327.	Miller & Hart.....	Mess pork.....	38 00
328.	Jones Hardware Co.....	Hardware and cooking utensils	39 40
329.	Sprague, Warner & Co.....	Groceries	39 62
330.	Fetta Water Softener Co.....	Chemicals	54 00
331.	J. M. Eggemeyer & Sons.....	Groceries	60 16
332.	The T. B. Laycock Mfg. Co.....	Bedsprings	66 30
333.	Booth Fisheries Co.....	Fresh fish.....	85 00
334.	W. M. Hoyt Co.....	Groceries	90 35
335.	A. G. Luken & Co.....	Dispensary supplies.....	135 63
336.	Edmund P. Thayer.....	Eggs	246 51
337.	Armour & Co.....	Butterine	296 70
338.	George Schwegman.....	Poultry, fresh and cured meats	306 00
339.	Geo. J. Klemm.....	Breadstuffs and provender...	401 35
340.	Schwarzschild & Sulzberger Co....	Fresh and cured meats.....	1,127 05
341.	I. R. Howard & Co.....	Sugar, coffee and groceries...	2,097 07
342.	Schneider's Carriage Factory.....	Work on carriage shaft.....	80
343.	Weiss Furniture Co.....	Recaning chairs.....	1 00
344.	Geo. C. Ferling.....	Veterinary services.....	2 00
345.	Light, Heat & Power Co.....	Gas for April, 1911.....	14 16

EXHIBIT 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
346.	Carson, Pirie, Scott & Co.....	Dry goods	\$56 63
347.	S. E. Smith.....	Incidental expense.....	64 56
348.	Indiana Reformatory.....	Tinware	144 50
349.	The Interstate Coal Co.....	Coal	1,650 12
350.	The E. G. Hill Co.....	Trees	67 00
351.	S. E. Smith, Med. Supt.....	Monthly payroll.....	4,604 02
352.	Frank S. Betz Co.....	Hot air thermometers.....	1 03
353.	E. N. Turman.....	Cartage	2 25
354.	Murray Hill.....	Cleaning curtains.....	3 00
355.	William Eggelhoff.....	Sweet potato plants.....	6 75
356.	The John Van Range Co.....	Castings for potato peeler....	7 25
357.	Light, Heat & Power Co.....	Gas for May, 1911.....	10 43
358.	Anton Stolle & Sons.....	Cured meats.....	14 00
359.	Edgar A. Murray Co.....	Insecticide	20 00
360.	W. H. Barton.....	Buttermilk	21 60
361.	The McConaha Co.....	Farm implements.....	22 00
362.	Dougan, Jenkins & Co.....	Insurance	26 25
363.	The Wayne Works.....	Boiler castings.....	27 30
364.	Miller & Hart.....	Mess pork.....	32 00
365.	Franklin MacVeagh & Co.....	Groceries	36 17
366.	W. M. Hoyt Co.....	Groceries	47 26
367.	Carson, Pirie, Scott & Co.....	Dry goods.....	53 89
368.	The Fetta Water Softener Co....	Chemicals	55 50
369.	Jacob Kern.....	Gasoline tank and boiler work	65 90
370.	Booth Fisheries Co.....	Fresh fish.....	67 40
371.	Standard Oil Co.....	Oils	67 96
372.	William B. Burford.....	Printing and stationery.....	73 49
373.	Indiana Reformatory.....	Lounges and brooms.....	95 40
374.	Harry U. Wood.....	Electric lamps.....	110 00
375.	The John W. Grubbs Co.....	Groceries	113 45
376.	Sprague, Warner & Co.....	Groceries	129 25
377.	Edmund P. Thayer.....	Eggs	148 50
378.	Adam H. Bartel Co.....	Dry goods.....	167 46
379.	Swift & Co.....	Fresh meats	249 14
380.	George Schwegman.....	Poultry and cured meats....	276 80
381.	I. R. Howard & Co.....	Groceries	331 18
382.	Armour & Co.....	Butterine and cured meats...	369 94
383.	Champion Roller Milling Co.....	Breadstuffs and provender...	400 50
384.	The Interstate Coal Co.....	Coal	729 30
385.	Schwarzschild & Sulzberger Co...	Fresh beef and cured meats..	1,157 11
386.	Miller's Harness Store.....	Stable supplies.....	1 40
387.	L. N. Cox & Son.....	Blacksmithing	2 52
388.	Julius Katte.....	Blacksmithing	4 13
389.	Ferd Grothaus.....	Reseating chairs.....	6 65
390.	Hoosier Mercantile Co.....	Queensware	7 50
391.	The Fleischmann Co.....	Yeast	11 25
392.	Schultz & Laning.....	Work on tinware.....	12 25
393.	The Geo. H. Knollenberg Co.....	Curtains and dusters.....	21 73
394.	S. E. Smith.....	Incidental expense	58 00
395.	J. M. Eggemeyer & Sons.....	Groceries	106 51
396.	A. G. Luken & Co.....	Dispensary supplies	148 41
397.	Jones Hardware Co.....	Lawn hose and hardware....	249 76
398.	George H. Nolte.....	Linoleum, curtains and rugs..	263 00
399.	Nicholson & Bro.....	Toilet paper	271 50
400.	Mather Bros. Co.....	Coal, coke and lime.....	273 09
401.	S. E. Smith, Med. Spt.....	Monthly payroll	5,074 40
402.	A. Meinecke & Son.....	Baskets	11 70
403.	Sprague, Warner & Co.....	Groceries	12 25
404.	W. H. Barton.....	Buttermilk	19 20

EXHIBIT 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
405.	Mather Bros. Co.....	Lime and fire-clay.....	\$20 25
406.	W. H. Cook.....	Timothy hay.....	22 69
407.	Standard Oil Co.....	Oils.....	24 59
408.	Franklin MacVeagh & Co.....	Groceries.....	25 53
409.	Richmond Home Telephone Co.....	Rental.....	26 00
410.	Dean Bros. Pump Works.....	Parts for steam pump.....	27 80
411.	Rhoads & Fillman.....	Napery.....	32 68
412.	Carson, Pirie, Scott & Co.....	Dry goods.....	37 40
413.	Aull Bros. Paper and Box Co.....	Paper boxes.....	37 50
414.	The McConaha Co.....	Mowing machine.....	43 00
415.	L. O. Morris.....	Timothy hay.....	48 45
416.	Fetta Water Softener Co.....	Chemicals.....	54 00
417.	Jones Hardware Co.....	Castings and hardware.....	54 91
418.	Indiana Reformatory.....	Tinware.....	57 00
419.	Adam H. Bartel Co.....	Dry goods.....	61 25
420.	H. V. McLeland & Co.....	Potatoes and melons.....	72 50
421.	George Schwegman.....	Sausage and lard.....	79 25
422.	J. M. Eggemeyer & Son.....	Groceries.....	79 41
423.	John Detamore, Trustee.....	Salary and expense.....	80 10
424.	Meredith Nicholson, Trustee.....	Salary and expense.....	83 15
425.	J. W. Hanan, Trustee.....	Salary and expense.....	85 02
426.	A. W. Luken & Co.....	Dispensary supplies.....	86 33
427.	J. L. Cowing, Trustee.....	Salary and expense.....	92 00
428.	W. M. Hoyt Co.....	Groceries.....	138 00
429.	Anton Stolle & Sons.....	Cured meats.....	144 50
430.	Edmund P. Thayer.....	Poultry and eggs.....	289 60
431.	I. R. Howard & Co.....	Groceries.....	297 30
432.	Armour & Co.....	Cured meat and butterine... ..	368 46
433.	Geo. J. Klemm.....	Breadstuffs and provender... ..	401 91
434.	Swift & Co.....	Fresh beef and dressed calves ..	1,215 97
435.	Miller's Harness Store.....	Harness strap.....	75
436.	Nicholson Printing & Pub. Co.....	Print paper.....	1 75
437.	L. N. Cox & Son.....	Blacksmithing.....	2 52
438.	Ferd. Grothaus.....	Diamond casters.....	4 50
439.	William B. Burford.....	Envelopes.....	4 78
440.	Quaker City Printing & Pub. Co.....	Advertising.....	5 37
441.	Hoosier Mercantile Co.....	Queenware.....	6 75
442.	The Item Newspaper Co.....	Advertising.....	6 84
443.	Palladium Printing Co.....	Advertising.....	7 35
444.	Julius Katte.....	Blacksmithing.....	7 56
445.	The John Van Range Co.....	Range parts.....	8 40
446.	Jas. Clark, Jr., Electric Co.....	Dry batteries.....	8 64
447.	The Fleischmann Co.....	Yeast.....	10 00
448.	American Steam Pump Co.....	Pump valves.....	10 80
449.	Williams Tool Co.....	Pipe machine dies.....	11 47
450.	Fry Bros.....	Screen lumber.....	11 50
451.	Light, Heat & Power Co.....	Gas for June, 1911.....	12 07
452.	Wm. Miller Range & Furnace Co.....	Castings for range.....	46 55
453.	S. E. Smith.....	Incidental expense.....	144 37
454.	Vandalia Coal Co.....	Coal.....	321 64
455.	S. E. Smith, Med. Supt.....	Monthly payroll.....	4,661 05
456.	Jacob Kern.....	Pipe flange.....	4 00
457.	Geo. G. Ferling.....	Veterinary services.....	7 00
458.	The Fleischmann Co.....	Yeast.....	11 25
459.	John A. Hasecoeter.....	Architect's services.....	12 50
460.	Dean Bros. Steam Pump Works...	Parts for steam pump.....	12 80
461.	W. H. Ross Drug Co.....	Photographic supplies.....	16 85
462.	Geo. B. Miller.....	Cutting oats.....	17 50
463.	Fry Bros.....	Screen lumber.....	17 97

EXHIBIT 3—Continued.

No.	To Whom Paid.	On Account of.	Amount.
464.	J. H. Russell.....	Upholstering	\$18 00
465.	W. B. Garver.....	Field seed	18 10
466.	W. H. Barton.....	Buttermilk	21 60
467.	Standard Oil Co.....	Oils	23 56
468.	Indiana Reformatory.....	Brooms	36 00
469.	Harry U. Wood.....	Electric light supplies.....	45 15
470.	Armour Ammonia Works.....	Ammonia	52 78
471.	Fetta Water Softener Co.....	Chemicals	54 00
472.	Hollweg & Reese.....	Queensware	95 25
473.	A. G. Luken & Co.....	Dispensary supplies	102 65
474.	Jones Hardware Co.....	Hose, fittings and hardware..	128 78
475.	O. A. Stubbs.....	Holstein bull	153 75
476.	I. R. Howard & Co.....	Groceries	193 13
477.	The John W. Grubbs Co.....	Groceries	193 32
478.	J. M. Eggemeyer & Sons.....	Eggs and groceries.....	199 22
479.	Adam H. Bartel Co.....	Dry goods and furnishings...	225 97
480.	Charles Hire.....	Stock pigs and threshing oats	238 93
481.	W. M. Hoyt Co.....	Dried fruits	240 00
482.	Armour & Co.....	Butterine	249 00
483.	Schwarzschild & Sulzberger Co...	Fresh and cured meats.....	278 21
484.	Sprague, Warner & Co.....	Groceries	304 35
485.	Harrold & Miller.....	Timothy hay	373 65
486.	Amos L. Wolfe.....	Timothy hay	433 16
487.	Champion Roller Milling Co.....	Breadstuffs and provender ..	443 00
488.	H. V. McLeland & Co.....	Potatoes, melons and fruit...	467 70
489.	George Schwegman	Poultry, fresh and cured meats	498 85
490.	Swift & Co.....	Fresh beef and veal.....	1,109 13
491.	L. N. Cox & Son.....	Blacksmithing	1 26
492.	The Advance Co.....	Pipe caps	2 40
493.	Julius Katte.....	Blacksmithing	5 22
494.	George H. Nolte.....	Rugs	10 75
495.	Light, Heat & Power Co.....	Gas for July, 1911.....	11 10
496.	The George H. Knollenberg Co...	Napery	19 49
497.	Ferd. Grothaus	Chairs	35 75
498.	S. E. Smith.....	Incidental expense	196 14
499.	S. E. Smith, Med. Supt.....	Monthly pay roll	4,444 81
500.	L. N. Cox & Son.....	Blacksmithing	2 52
501.	Nicholson & Bro.....	Marking pens	2 75
502.	Advance Co.....	Work on man-head	2 90
503.	Miller's Harness Store.....	Stable supplies	3 60
504.	Schultz & Laning.....	Cooking utensils	4 50
505.	The John Van Range Co.....	Range lining	6 92
506.	Wiggins & Son.....	Blacksmithing	7 91
507.	Ballinger & Gibbs.....	Work on pump and cream freezer	8 95
508.	Schneider's Carriage Factory.....	Work on wagons	9 15
509.	The Fleischmann Co.....	Yeast	11 25
510.	Clipper Lawn Mower Co.....	Lawn mowers	11 54
511.	Standard Oil Co.....	Gasoline	12 08
512.	W. B. Garver.....	Seed rye	14 25
513.	J. S. Henwood.....	Apples	15 23
514.	W. H. Barton.....	Buttermilk	21 60
515.	J. H. Russell.....	Furniture covers	23 00
516.	Hollweg & Reese.....	Queensware	24 00
517.	W. E. Pickett & Co.....	Melons	27 00
518.	Amos L. Wolfe.....	Straw	32 67
519.	J. M. Eggemeyer & Sons.....	Groceries	66 97
520.	Harry C. Heinbaugh.....	Potatoes	67 78
521.	A. G. Luken & Co.....	Dispensary supplies	87 82

EXHIBIT 3—Continued.

No.	To Whom Paid.	On Account of.	Amount.
522.	Anton Stolle & Sons.....	Cured meats	\$101 35
523.	Schwarzschild & Sulzberger Co....	Cured meats	106 00
524.	Clendennin Fertilizer Co.....	Fertilizer	115 44
525.	Sprague, Warner & Co.....	Groceries	125 89
526.	Edmund P. Thayer.....	Eggs	144 00
527.	Jones Hardware Co.....	Pipe fittings and hardware....	206 00
528.	O. A. Kemper.....	Melons and potatoes.....	225 23
529.	George Schwegman	Cured meats and poultry.....	234 61
530.	Armour & Co.....	Butterine and cured meats....	341 17
531.	Champion Roller Milling Co.....	Breadstuffs and provender....	380 00
532.	Swift & Co.....	Fresh beef, pork and veal....	1,359 78
533.	I. R. Howard & Co.....	Groceries, sugar and coffee....	2,049 77
534.	W. H. Ross Drug Co.....	Photographic supplies	25
535.	Richmond Home Telephone Co....	Cross arm braces	1 10
536.	Hoosier Mercantile Co.....	Queenware	16 75
537.	S. E. Smith.....	Incidental expense	89 41
538.	Vandalia Coal Co.....	Coal	861 17
539.	S. E. Smith, Med. Supt.....	Monthly pay-roll	4,523 82
540.	The Peter Johnson Co.....	Stove grates	1 55
541.	Light, Heat & Power Co.....	Gas for August, 1911.....	2 85
542.	Litchfield Lamp Co.....	Brass tubing	3 00
543.	Jenkins & Co.....	Repairing master clock.....	3 50
544.	Morning News	Advertising	5 65
545.	Item Newspaper Co.....	Advertising	6 84
546.	Palladium Printing Co.....	Advertising	7 35
547.	Wiggins & Son.....	Blacksmithing	8 10
548.	The Fleischmann Co.....	Yeast	11 25
549.	W. H. Barton.....	Buttermilk	21 60
550.	L. N. Cox & Son.....	Blacksmithing and fertilizer....	21 52
551.	T. C. Taylor.....	Fertilizer	22 90
552.	Richmond Home Telephone Co....	Rental	26 00
553.	The John Van Range Co.....	Plates for potato peeler	29 00
554.	Indiana Reformatory	Mop heads	42 00
555.	Fetta Water Softener Co.....	Chemicals	54 00
556.	Standard Oil Co.....	Oils	56 30
557.	A. G. Luken & Co.....	Dispensary supplies	89 47
558.	Meredith Nicholson, Trustee.....	Salary	75 00
559.	W. E. Pickett & Co.....	Potatoes	77 50
560.	Sprague, Warner & Co.....	Groceries	80 06
561.	John Detamore, Trustee.....	Salary and expense.....	81 65
562.	J. L. Cowing, Trustee.....	Salary and expense.....	92 00
563.	J. W. Hanan, Trustee.....	Salary and expense.....	98 06
564.	Anton Stolle & Sons.....	Cured meats	118 00
565.	O. A. Kemper	Potatoes and melons.....	174 21
566.	J. M. Eggemeyer & Sons.....	Eggs and groceries.....	196 64
567.	George Schwegman	Chickens and sausage.....	328 20
568.	I. R. Howard & Co.....	Groceries	364 00
569.	Champion Roller Milling Co.....	Breadstuffs and provender....	437 00
570.	Armour & Co.....	Butterine and fresh meats....	525 37
571.	Vandalia Coal Co.....	Coal	679 17
572.	Swift & Co.....	Fresh beef	720 49
573.	Geo. H. Nolte.....	Rugs	23 80
574.	Starr Piano Co.....	Piano tuning for 1911.....	50 00
575.	S. E. Smith.....	Incidental expense	36 64
576.	The Geo. H. Knollenberg Co.....	Napery	54 57
577.	Jones Hardware Co.....	Corn-cutter and hardware....	65 50
578.	Charley Hire	Filling silo	188 75
579.	Ballinger & Gibbs.....	Work on valves	2 75

EXHIBIT 3—Continued.

No.	To Whom Paid.	On Account of.	Amount.
580.	William Shendler	Stable fertilizer	\$4 00
581.	H. V. McLeland & Co.	Potatoes	103 21
582.	American Laundry Machinery Co.	Paper baling machine.....	42 75
583.	William B. Burford.....	Printing and stationery	385 41
584.	John Musser	Cider	9 50
585.	H. V. McLeland & Co.	Potatoes	221 85
Total			\$141,525 78

EXHIBIT 4.

SHOWING CLASSIFIED EXPENDITURES ON ACCOUNT OF RE-
PAIRS FOR THE FISCAL YEAR ENDING
SEPTEMBER 30, 1911.

Pipe and fittings.....	\$539 28	
Roofs	203 55	
Hardware	100 06	
Cement and vitrified pipe.....	458 84	
Repair payroll	4,377 60	
Paints and oils.....	552 03	
Galvanized iron work.....	80 35	
Brick and stone.....	62 00	
Grates and mantels.....	112 05	
Ice tanks	38 50	
Electric light posts.....	155 10	
Wall-papering	21 75	
Wire goods	57 50	
Lumber	38 81	
Engineers' supplies	172 93	
Laundry supplies	115 86	
Electrical supplies	130 50	
Welsh quarry tile.....	203 25	
Current expense		\$7,419 96
Total	\$7,419 96	\$7,419 96

EXHIBIT 5.

LIST OF VOUCHERS SHOWING DISBURSEMENTS ON ACCOUNT
OF REPAIRS FOR THE FISCAL YEAR ENDING
SEPTEMBER 30, 1911.

No.	To Whom Paid.	On Account of.	Amount.
1.	S. E. Smith, Med. Supt.....	Repair pay roll.....	\$388 91
2.	Hackman, Klehfoth & Co.....	Cement	35 25
3.	A. G. Luken & Co.....	White lead	36 50
4.	Jones Hardware Co.....	Glass, pipe and fittings.....	67 50
5.	S. E. Smith, Med. Supt.....	Repair pay roll	386 70
6.	Powell Bros.	Brick work	11 25
7.	Hackman, Klehfoth & Co.....	Cement	17 50
8.	A. G. Luken & Co.....	Paints and oils.....	42 75
9.	Jones Hardware Co.....	Paints and glass.....	54 35
10.	S. E. Smith, Med. Supt.....	Repair pay roll	362 90
11.	A. G. Luken & Co.....	Paints	12 90
12.	Chas. E. W. Wagner.....	Grates and labor	87 65
13.	S. E. Smith, Med. Supt.....	Repair pay roll.....	240 12
14.	Jones Hardware Co.....	Paints	2 00
15.	A. G. Luken & Co.....	Paints	8 50
16.	Schultz & Laning.....	Galvanized iron stack.....	11 85
17.	Chas. E. W. Wagner.....	Grates and hearths	24 40
18.	Henry Vogt Machine Co.....	Repairs, coldstore machinery.	201 50
19.	S. E. Smith, Med. Supt.....	Repair pay roll	256 00
20.	Schultz & Laning.....	Tinware	8 50
21.	Patek Bros.	Floor paint	15 07
22.	Jacob Kern	Ice tank	38 50
23.	Jones Hardware Co.....	Varnish and glass	110 70
24.	S. E. Smith, Med. Supt.....	Repair pay roll	289 63
25.	A. G. Luken & Co.....	Paint	5 35
26.	Jones Hardware Co.....	Glass and paint	9 88
27.	Hackman, Klehfoth & Co.....	Cement	61 25
28.	Steinkamp Bros.....	Cement work	70 30
29.	S. E. Smith, Med. Supt.....	Repair pay roll	229 63
30.	Mather Bros. Co.....	Sewer pipe	19 00
31.	A. G. Luken & Co.....	Linseed oil	50 68
32.	S. E. Smith, Med. Supt.....	Repair pay roll.....	358 30
33.	Jones Hardware Co.....	Paint	10 00
34.	A. G. Luken & Co.....	Paints and brushes.....	21 64
35.	Nicholson & Bro.	Wall papering	21 75
36.	C. E. Newman	Setting lamp posts	26 30
37.	Schultz & Laning	Repairing roofs and gutters..	93 10
38.	S. E. Smith, Med. Supt.	Repair pay roll	383 58
39.	Hackman, Klehfoth & Co.....	Cement	26 25
40.	A. G. Luken & Co.....	Paints	37 75
41.	Ed. Powell	Bricklaying	50 75
42.	Kent Manufacturing Co.....	Galvanized mangers	60 00
43.	Schultz & Laning	Repairing roofs and gutters..	106 05
44.	S. E. Smith, Med. Supt.	Repair pay roll	393 28
45.	Edward Powell	Bricklaying	4 40
46.	Mather Bros. Co.....	Cement	20 00
47.	Fry Bros.	Lumber	24 72
48.	A. G. Luken & Co.....	Paints and oils	46 38
49.	Barbee Wire & Iron Works.....	Window guards	57 50
50.	Jones Hardware Co.....	Paints and pipe covering....	301 92

EXHIBIT 5—Continued.

No.	To Whom Paid.	On Account of.	Amount.
51.	S. E. Smith, Med. Supt.	Repair payroll	\$600 25
52.	The Wayne Works.....	Castings	6 00
53.	Chas. H. Myers.....	Farm tile	15 94
54.	S. E. Smith	Freight on electrical supplies.	27 97
55.	A. G. Luken & Co.....	Paints and oils.....	55 85
56.	Jones Hardware Co.....	Electrical supplies	60 31
57.	The J. L. Mott Iron Works.....	Electric light supplies	67 50
58.	Henry Vogt Machine Co.....	Water governor	14 00
59.	American Laundry Machinery Co..	Gas engine and mangle aprons	98 23
60.	S. E. Smith, Med. Supt. >.....	Repair pay roll	588 30
61.	Fry Bros.	Tobacco sticks	12 50
62.	Schultz & Laning.....	Tin tubing	14 75
63.	A. G. Luken & Co.....	Paints	41 80
64.	Mather Bros. Co.....	Cement	193 35
65.	Jones Hardware Co.....	Electrical supplies	319 27
66.	S. E. Smith, Med. Supt.....	Freight on tile.....	47 35
67.	F. E. Gates Marble & Tile Co.....	Welsh quarry tile	155 90
Total			\$7,419 96

EXHIBIT 6.

SHOWING CLASSIFIED EXPENDITURES ON ACCOUNT OF CLOTH-
ING FOR THE FISCAL YEAR ENDING SEP-
TEMBER 30, 1911.

Hose	\$401 72	
Gloves	47 37	
Shirts and underwear.....	1,026 25	
Trousers	270 09	
Overalls	81 92	
Men's suits	1,304 00	
Boots and shoes.....	1,463 01	
Furnishings	372 85	
Dry goods	220 86	
Storm coats	82 88	
Clothing payroll	424 53	
Hats and caps.....	12 50	
Shawls	221 90	
Sweaters	61 50	
Current expense		\$5,991 38
Total	\$5,991 38	\$5,991 38

EXHIBIT 7.

LIST OF VOUCHERS SHOWING DISBURSEMENTS ON ACCOUNT
OF CLOTHING FOR THE FISCAL YEAR END-
ING SEPTEMBER 30, 1911.

No.	To Whom Paid.	On Account of.	Amount.
1.	S. E. Smith, Med. Supt.	Clothing pay roll	\$36 00
2.	Adam H. Bartel Co.	Sample shirt	75
3.	Indiana Reformatory	Clothing	306 00
4.	S. E. Smith, Med. Supt.	Clothing pay roll	36 00
5.	Adam H. Bartel Co.	Shirts and furnishings	85 63
6.	Rhoads & Fillman	Underwear	330 69
7.	S. E. Smith, Med. Supt.	Clothing pay roll	36 00
8.	Chas. H. Feltman	Felt boots	77 50
9.	Indiana Reformatory	Shoes	376 00
10.	Adam H. Bartel Co.	Dry goods and furnishings	484 94
11.	Rhoads & Fillman	Men's slippers	105 00
12.	S. E. Smith, Med. Supt.	Clothing pay roll	33 32
13.	Chas. H. Feltman	Boots and shoes	41 50
14.	Adam H. Bartel Co.	Clothing and furnishings	74 70
15.	S. E. Smith, Med. Supt.	Clothing pay roll	34 86
16.	Rhoads & Fillman	Clothing	15 52
17.	Adam H. Bartel Co.	Clothing and furnishings	157 30
18.	S. E. Smith, Med. Supt.	Clothing pay roll	37 00
19.	Jones Hardware Co.	Oiled coats	5 00
20.	Adam H. Bartel Co.	Hose and furnishings	95 61
21.	Rhoads & Fillman	Clothing and dry goods	311 53
22.	S. E. Smith, Med. Supt.	Clothing pay roll	37 00
23.	Carson, Pirie, Scott & Co.	Dry goods	15 75
24.	S. E. Smith, Med. Supt.	Clothing pay roll	37 00
25.	Adam H. Bartel Co.	Furnishings	5 18
26.	Indiana Reformatory	Shoes	193 10
27.	Chas. H. Feltman	Shoes	204 00
28.	Rhoads & Fillman	Slippers and hose	282 32
29.	S. E. Smith, Med. Supt.	Clothing pay roll	31 00
30.	Adam H. Bartel Co.	Furnishings	34 81
31.	Rhoads & Fillman	Clothing and slippers	146 88
32.	S. E. Smith, Med. Supt.	Clothing pay roll	37 00
33.	Rhoads & Fillman	Shirts and slippers	1 35
34.	The Geo. H. Knollenberg Co.	Shawls	10 40
35.	Mary P. Austin	Women's hats	12 50
36.	Adam H. Bartel Co.	Dry goods and furnishings	236 18
37.	Indiana Reformatory	Clothing and shoes	842 00
38.	Indiana Reformatory	Clothing	339 68
39.	S. E. Smith, Med. Supt.	Clothing pay roll	32 35
40.	Curme, Feltman Shoe Co.	Shoes	102 00
41.	Adam H. Bartel Co.	Underwear and shirts	216 86
42.	Rhoads & Fillman	Underwear and slippers	296 25
43.	S. E. Smith, Med. Supt.	Clothing pay roll	37 00
44.	Curme, Feltman Shoe Co.	Shoes	4 00
45.	George Fox	Clothing and furnishings	16 50
46.	Adam H. Bartel Co.	Underwear and dry goods	139 42
Total			\$5,991 38

EXHIBIT 8.

SHOWING CLASSIFIED EXPENDITURES FROM THE SPECIFIC
FUND FOR MECHANICAL EQUIPMENT FOR THE FIS-
CAL YEAR ENDING SEPTEMBER 30, 1911.

Appropriation	\$14,000 00
Disbursements 1909-1910	\$12,366 32
Tools	\$92 50
Electric conduit	243 53
Lamp posts	918 03
Electric wire	224 93
Oil separator	28 00
Laundry apparatus	70 00
Telephone apparatus	42 30
Disbursements 1910-1911	1,619 29
Balance covered into general fund.....	14 39
	<hr/>
	\$14,000 00 \$14,000 00

LIST OF VOUCHERS SHOWING DISBURSEMENTS FROM THE
SPECIFIC FUND FOR MECHANICAL EQUIPMENT.

No.	To Whom Paid.	On Account of.	Amount.
1.	The Leavitt Machine Co.....	Valve reseating machine.....	\$92 50
2.	The Sanborn Electric Co.....	Electric light fixtures.....	555 00
3.	American Conduit Co.....	Bituminized conduit	26 41
4.	Fetta Water Softener Co.....	Boiler surfaces	28 00
5.	Hoadley Stone Co.....	Stone lamp posts	60 00
6.	General Electric Co.....	Weather-proof wire	80 93
7.	General Electric Co.....	Electric cable	144 00
8.	Jones Hardware Co.....	Post light fixtures.....	35 50
9.	American Conduit Co.....	Bituminized conduit	47 12
10.	Kellogg Switchboard & Sup. Co...	Fix telephones	42 30
11.	National Laundry Machinery Co...	Laundry machines	70 00
12.	The J. L. Mott Iron Works.....	Lamp posts	38 00
13.	The J. L. Mott Iron Works.....	Lamp posts	399 53
	Total		<hr/> \$1,619 29

EXHIBIT 9.

REPORT OF THE SEWING ROOM FOR THE FISCAL YEAR END-
ING SEPTEMBER 30, 1911.

	<i>Made.</i>	<i>Repaired.</i>
Aprons	685	38
Awnings	34	8
Bags, laundry	10	..
Blankets	236
Caps, nurses'	186	..
Chemises	122	..
Combination suits	15	65
Coats	86
Comforts	2
Curtain loops	52	..
Cushions	4	2
Cushion covers	40	1
Drawers, men's	3	140
Drawers, womens	232	..
Dresser scarfs	22	..
Dresses	218	56
Dress skirts	2
Dusting cloths	30	..
Flags	2
Gloves, canvas	6	..
Mattress ticks	210	..
Night gowns	234	..
Night shirts	80	..
Pillows, feather	3	..
Pillow cases	266	26
Pillow ticks	105	..
Restraint waists	10	28
Rest sheets	9
Rugs	33
Sash curtains	43	4
Sheets	529	..
Shirts	2	128
Shirt waists	2	..
Sleeves	27
Strainer cloths	74	..
Table cloths	147	6
Table felts	1	1
Table napkins	650	11
Towels	1,476	154
Trousers	2	494
Underskirts	215	..
Underwaists	50	..
Vests	22
Window curtains	157	32
Window shades	79	18

EXHIBIT 10.

SUMMARY OF INVENTORY, SEPTEMBER 30, 1911.

Real Estate—

Land, 323.041 acres.....	\$32,908 50
Permanent improvements	784,970 46

 \$817,878 96

Personal Property—

Offices	\$5,517 89
Dispensary	2,509 68
Laboratory	702 10
Officers' quarters	6,088 52
Store-room	15,440 46
Department for men	18,164 33
Department for women	21,151 83
Dining-rooms	3,132 95
Assembly hall	1,618 57
Employes' quarters	4,317 97
General kitchen	2,859 05
Cold store	457 00
Bakery	1,023 00
Sewing-room	562 27
Laundry	6,272 84
Carpenter shop	3,434 97
Paint shop	473 83
Greenhouse	2,979 50

Farm and Garden—

Horses and mules.....	2,687 50
Wagons, harness and implements.....	2,827 57
Products and supplies.....	3,885 50
Brick stable	1,962 70
Farm cottage	217 95

Dairy—

Live stock	2,765 15
Implements and tools.....	208 15
Cottage	82 75
Piggery	1,518 80
Power house	9,584 48

 Total personal property \$122,447 24

 Grand total \$940,326 20

I certify that the foregoing fiscal tables are correct transcripts.

J. P. THISTLETHWAITE,

Steward.

Uniform Statistical Tables with Medical
Superintendent's Report.

TABLE A.

MOVEMENT OF POPULATION FROM OPENING OF HOSPITAL, AUGUST 1, 1890, TO SEPTEMBER 30, 1911.

Year.	Received.		Discharged.						Died.		Transferred to Other Hospitals.		Enrolled at Close of Year.		Temporarily Absent.		Daily Average Attendance.		
	M.	W.	Re-covered.		Im-proved.		Unim-proved.		Not Insane.		Idiotic.		M.	W.	M.	W.	M.	W.	Total.
			M.	W.	M.	W.	M.	W.	M.	W.	M.	W.							
1890.	166	150	2	2	1	1	2	2	2	3	3	3	155	144	22	20	99.5	87.8	177.3
1890-1891.	109	85	18	11	4	4	2	3	1	1	2	1	214	196	5	13	180.2	161.7	341.9
1891-1892.	76	86	34	40	11	5	3	1	4	1	1	1	215	224	5	13	201.9	189.4	391.3
1892-1893.	44	39	9	13	10	5	2	2	4	1	1	1	219	232	8	15	207	215.3	422.3
1893-1894.	29	26	11	11	4	5	1	4	1	2	1	1	217	233	6	9	210.4	221	431.4
1894-1895.	27	29	14	13	8	3	1	4	1	2	2	1	219	237	7	11	211.2	225.2	436.4
1895-1896.	79	56	13	11	7	8	2	2	1	1	2	1	263	256	7	6	228.3	237.3	468.6
1896-1897.	50	65	16	21	9	9	10	3	1	1	2	1	269	273	12	8	255.8	253.1	508.9
1897-1898.	45	56	14	20	9	10	8	2	1	1	2	1	268	277	11	8	256.7	264.2	520.9
1898-1899.	32	54	6	15	9	12	1	1	1	1	1	1	264	285	5	10	257.8	273.8	531.6
1899-1900.	98	55	18	17	7	14	2	2	1	1	1	1	315	326	2	6	291.2	271.1	570.3
1900-1901.	114	88	28	18	21	19	6	3	1	1	1	1	332	311	10	9	320.6	296.1	616.7
1901-1902.	82	63	24	16	31	16	3	3	1	1	1	1	325	320	4	6	321.8	303.2	625.7
1902-1903.	99	81	19	26	18	18	1	1	1	1	1	1	354	344	10	8	333.53	322.77	656.3
1903-1904.	84	84	22	17	20	20	3	1	1	1	1	1	357	365	9	9	344.07	342.24	686.31
1904-1905.	57	88	20	15	13	28	3	2	1	1	1	1	353	386	7	8	346.2	368.3	714.5
1905-1906.	47	65	7	28	12	17	3	2	1	1	1	1	359	392	10	11	348.88	382.26	731.14
1906-1907.	49	68	11	19	9	17	3	2	1	1	1	1	363	389	8	8	351.19	378.97	730.17
1907-1908.	62	69	18	19	9	17	1	1	1	1	1	1	366	403	4	6	358.6	385.8	744.4
1908-1909.	55	78	13	19	8	9	2	1	1	1	1	1	393	417	3	10	384.1	406.3	790.4
1909-1910.	66	80	14	26	6	28	2	1	1	1	1	1	394	392	6	4	391.8	403.2	795
1910-1911.	110	137	15	20	17	23	3	3	1	1	1	1	400	427	5	8	393.2	400.6	793.8
Total	1,590	1,626	336	396	238	283	36	30	14	2	4	8	492	423	70	57			

TABLE B.

COUNTY REPRESENTATION.

COUNTIES.	Quota.	Movement of Population, October 1, 1910, to September 30, 1911.										Present at Close of Year.	Clothing Account.	
		Re- ceived.		Trans- ferred from Other Hos- pitals.		Dis- charged.		Died.		Trans- ferred to Other Hos- pitals.				
		M.	W.	M.	W.	M.	W.	M.	W.	M.	W.			M.
Adams.....	37.9	3	2			3	2		1			15	9	\$89 75
Allen.....	161.1	6	12			2	7	2	8			63	62	585 20
Blackford.....	27.4	3	5			3	2	2				8	8	54 25
DeKalb.....	43.4	1	1									1	1	
Delaware.....	89.2	11	11			3	1	9	4			38	35	270 80
Fayette.....			1				1			18	9	1	3	171 90
Franklin.....	26.7	1				1			1			17	8	130 10
Grant.....		4	10			3	5	2	3			24	35	441 20
Hancock.....												14		14 80
Henry.....	51.4	3	1			1	4					21	25	135 10
Huntington.....	50.3		1	28	23							28	22	
Jay.....	43.3	5	9			2	3		1			24	33	164 20
LaGrange.....	26.2		1	5	8							5	8	
Madison.....		8	10			6	5	8	5			46	52	485 10
Noble.....	41.6	1										1		
Randolph.....	50.3	1	2			1	3		2			18	18	97 50
Rush.....		2	2			4	1		2	20	15	2	1	266 60
Steuben.....	24.7			11	18							10	17	1 75
Union.....	10.8		4				1		1			7	8	26 25
Wayne.....	75.9	14	10			4	4	8	6			45	55	300 00
Wells.....	38.9	3	6			2	4					20	19	175 20
Total.....		66	88	44	49	35	43	31	35	38	24	395	419	\$3,409 70

TABLE C.

FORM OF INSANITY AND PREVIOUS DURATION OF DISEASE IN PATIENTS ADMITTED OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

DURATION OF DISEASE.	Under One Month.		One Month to Three Months.		Three Months to Six Months.		Six Months to Twelve Months.		One Year to Two Years.		Two Years to Five Years.		Five Years to Ten Years.		Ten Years to Twenty Years.		Over Twenty Years.		Total.	
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.
Forms of Insanity—																				
Melancholia, simple																			16	16
Mania, acute	1	6	2	6	1	5	4	1	3	3	1	1							11	16
Acute confusional insanity																			1	30
Mania, chronic																				
Mania, recurrent																			22	4
Dementia, chronic																			29	43
Parity dementia																			8	7
Organic dementia																			5	3
Psychotic dementia																			1	1
Dementia with paralysis																			8	8
Paranoia																			1	1
Dementia with bromoform ataxia																			7	1
Toxic insanity																			1	1
Total	1	8	9	15	8	8	13	7	19	19	19	25	15	15	19	26	7	14	110	137

[illegible]

TABLE D—Continued.

	AGE PERIOD.													
	Under 20		20 to 30		30 to 40		40 to 50		50 to 60		60 to 70		Over 70	
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.
Nativity—Continued.														
Tennessee.....														1
Texas.....									1					1
Virginia.....					1		1							
West Virginia.....									1	1				
Total.....	5	3	17	14	27	29	18	31	23	25	14	19	6	16
Civil Condition—														
Married.....		1		7	12	16	11	23	14	16	4	5	4	4
Single.....	5	2	17	7	13	11	6	4	8	2	8	1	2	1
Widowed.....						1		2		6	1	12		11
Divorced.....					2	1	1	2	1	1	1	1		
Total.....	5	3	17	14	27	29	18	31	23	25	14	19	6	16
Color—														
White.....	4	3	16	14	27	28	17	31	23	24	14	19	6	15
Colored.....	1		1			1	1			1				1
Total.....	5	3	17	14	27	29	18	31	23	25	14	19	6	16
Education—														
College.....			1		4		1	1	1		1			3
Common school.....	4	3	15	14	19	27	16	26	19	19	13	14	4	9
None.....	1		1		1	2			2	2	1	1	2	2
Unknown.....					3		1	4	1	4		3		2
Total.....	5	3	17	14	27	29	18	31	23	25	14	19	6	16

TABLE E.

DURATION OF MENTAL DISEASE IN PERSONS WHO RECOVERED OR DIED
OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

PERIOD.	First Admitted to Any Hospital.						All Other Admissions.			
	Duration Before Admission.		Hospital Residence.		Whole Duration.		Whole Known Period of Mental Disease.		Whole Known Period of Hospital Residence.	
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.
Recovered—										
Under 1 month.....		3								
From 1 to 3 months.....	4	5	2	1	1					
From 3 to 6 months.....	1	5	4	7	1	2				
From 6 to 12 months.....	3	1	4	8	3	8			1	1
From 1 to 2 years.....	2	2	1		3	5	1	2	2	1
From 2 to 5 years.....	1	1		1	3	2	2	1	1	1
From 5 to 10 years.....							1			
From 10 to 20 years.....										
Over 20 years.....										
Unknown.....										
Total.....	11	17	11	17	11	17	4	3	4	3
Died—										
Under 1 month.....	1		1			1				
From 1 to 3 months.....	2	5	2	5		1				
From 3 to 6 months.....	4	2	6	5	3	1				
From 6 to 12 months.....	1	2	2		1					1
From 1 to 2 years.....	7	7	5	4	2	4		1		1
From 2 to 5 years.....	7	7	3	4	8	9	1	1	1	1
From 5 to 10 years.....	3	3	2	2	6	4		1	1	
From 10 to 20 years.....	2		4	5	3	5	1	1	1	1
Over 20 years.....		1	2	2	4	3	2	4	1	4
Unknown.....										
Total.....	27	27	27	27	27	27	4	8	4	8

TABLE F.

APPROPRIATIONS.

FUND.	Act Approved.	Regular or Specific.	Amount Available for Current Year.	Expended During Year.	Balance.	
					Reverting to State Treasury.	Available for Further Use.
Maintenance for 750 patients	Mch. 9, 1909	Regular.	\$135,000 00			
Excess maintenance, 43+ patients at \$1.80.....	Mch. 9, 1909	Regular.	7,902 01			
Total maintenance fund.....			\$142,902 01	\$141,525 78	\$1,376 23	
Repairs.....	Mch. 9, 1909	Regular.	7,500 00	7,419 96	80 04	
Clothing.....	Mch. 9, 1909	Regular.	6,000 00	5,991 38	8 62	
Mechanical equipment.....	Mch. 9, 1909	Specific.	1,633 68	1,619 29	14 39	
Total.....			\$158,036 69	\$156,556 41	\$1,479 28	

TABLE G.

CLASSIFIED EXPENDITURES, OCTOBER 1, 1910, to SEPTEMBER
30, 1911.

<i>Current Expenditures.</i>	<i>Amount.</i>	<i>Per Capita.</i>
Administration—		
Trustees or directors	\$1,175 00	\$1.480
Officers	12,228 45	15.403
Teachers, literary
Teachers, industrial
Attendants	23,745 61	29.911
Domestics, laborers and other employes.....	19,913 56	25.084
Guards
Total	\$57,062 62	\$71.878
Subsistence—		
Fresh meats	\$14,217 19	\$17.909
Salted meats and lard.....	4,187 82	5.275
Fish (fresh and cured), oysters, etc.....	486 62	.613
Butter, eggs and poultry.....	8,068 37	10.163
Vegetables	4,034 45	5.082
Fresh fruits	498 83	.628
Dried fruits	1,020 50	1.285
Canned goods	753 90	.950
Breadstuffs, cereals, beans, etc.....	6,950 41	8.755
Vinegar and syrup.....	783 42	.987
Tea, coffee and sugar.....	5,751 29	7.245
Milk	206 40	.260
All other food supplies.....	1,857 19	2.339
Total	\$48,816 39	\$61.491
Clothing, etc.—		
Clothing	\$3,510 13	\$4.421
Shoes	1,463 01	1.843
Tailor and sewing room supplies.....	1,018 24	1.283
Miscellaneous
Total	\$5,991 38	\$7.547
Office, Domestic and Outdoor Departments—		
School supplies
Library, newspapers and periodicals.....	\$156 85	\$0.198
Stationery and printing	946 73	1.191
Industrial department
Furniture, fixtures, bedding and other house- hold equipment	5,086 19	6.407
Laundry supplies, soaps and other cleansers...	1,547 65	1.949

TABLE G—Continued.

Medicines, instruments and other sick ward supplies	\$1,241 85	\$1.564
Postage, telegraphing and telephoning.....	586 83	.739
Freight and transportation.....	579 91	.731
Stable, farm, garden, provender, etc.....	5,148 41	6.485
Ice
Tobacco	675 54	.851
Music and amusements	331 60	.418
Expenses of discharged inmates.....
Fuel and light	16,197 16	20.403
Engineer's supplies	2,754 70	3.470
Insurance	393 35	.496
Water
Other classifications
Total	\$35,646 77	\$44.902
Ordinary Repairs and Minor Improvements—		
Materials	\$2,066 32	\$2.603
Labor	5,353 64	6.744
Total	\$7,419 96	\$9.347
Grand total of current expenditures.....	\$154,937 12	\$195.165
Less earnings paid into State treasury.....	1,092 81	
Less amounts due from counties for clothing, maintenance, etc.	3,409 70	
Net cost to State.....	\$150,434 61	\$189.493
Extraordinary Expenditures—		
New buildings and furnishings
Permanent improvements		\$1,619 29
Land
Total extraordinary expenses.....		\$1,619 29

TABLE H.

SUMMARY OF EXPENDITURES, OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

MONTH.	Maintenance.	Repairs.	Clothing.	Mechanical Equipment.	Total.
October, 1910.....	\$12,260 38	\$528 16	\$342 75	\$13,131 29
November, 1910.....	15,322 96	512 55	452 32	16,287 83
December, 1910.....	15,640 71	363 45	1,079 44	17,083 60
January, 1911.....	10,997 96	488 37	149 52	\$92 50	11,728 35
February, 1911.....	10,881 54	428 77	207 68	555 00	12,072 99
March, 1911.....	10,928 54	436 41	449 14	195 34	12,109 43
April, 1911.....	11,064 53	299 31	52 75	144 00	12,460 59
May, 1911.....	10,981 18	531 09	721 60	82 62	12,316 49
June, 1911.....	9,837 71	664 38	212 69	150 30	10,865 08
July, 1911.....	11,240 27	848 20	1,479 11	13,567 58
August, 1911.....	11,287 12	946 05	647 46	399 53	13,280 16
September, 1911.....	10,132 88	1,373 22	196 92	11,753 02
	\$141,525 78	\$7,419 96	\$5,991 38	\$1,619 29	\$156,556 41

TABLE I.

SUMMARY OF STATISTICS FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1911.

(Prepared in conformity to resolution adopted by the National Conference of Charities and Correction, Philadelphia, May 1906.)

MOVEMENT OF POPULATION.

	Men.	Women.	Total.
Number of inmates enrolled October 1, 1910..	394	293	789
Temporarily absent	6	4	10
Number of inmates received during year....	110	137	247
Number of inmates discharged, transferred and died during year.....	104	102	206
Number of inmates enrolled September 30, 1911	400	427	827
Temporarily absent	5	8	13
Daily average number present.....	393.218	400.657	793.875
Average number of officers and employees.....	92.5	74.6	167.1

EXPENDITURES.

Ordinary Expenses—	Per Capita.	Total.
Salaries and wages.....	\$71.878	\$57,062 62
Subsistence	61.491	48,816 39
Clothing	7.547	5,991 38
Office, domestic and outdoor expenses.....	44.902	35,646 77
Ordinary repairs	9.347	7,419 96
Total	\$195.165	\$154,937 12

TABLE I—Continued.

Extraordinary Expenses—

New buildings and furnishings for same.....
Permanent improvements	\$1,619 29
Total	\$1,619 29
Grand total expense	\$156,556 41
Receipts and earnings	1,092 81
Net total expense	\$155,463 60

TABLE J.

OFFICERS AND EMPLOYEES, SEPTEMBER 30, 1911.

Position.	Number Employed.	Salary per Month.	*Additional Compensation.
Medical superintendent.....	1	\$333 33	
Matron.....	1	50 00	
Senior assistant physician.....	1	125 00	
Junior assistant physician.....	1	100 00	
Woman physician.....	1	75 00	
Medical interne.....	1	75 00	
Steward.....	1	100 00	Board in part only.
Storekeeper.....	1	50 00	
Superintendent's secretary.....	1	50 00	
Apothecary.....	1	50 00	
Supervisor, men.....	1	50 00	
Supervisor, women.....	1	42 00	
Clothing clerk, men.....	1	30 00	
Clothing clerk, women.....	1	30 00	
Head nurse, men.....	1	25 00	
Head attendants, men.....	1	38 00	
Head attendants, men.....	1	28 00	\$5.00 as musical director.
Head attendants, men.....	10	25 00	
Head nurse, women.....	1	25 00	
Head attendants, women.....	2	29 00	
Head attendants, women.....	1	27 00	
Head attendants, women.....	2	23 00	
Head attendants, women.....	2	22 00	
Head attendants, women.....	3	21 00	
Head attendants, women.....	4	20 00	
Night nurse, men.....	1	25 00	
Night attendants, men.....	1	34 00	
Night attendants, men.....	2	26 00	
Night attendants, men.....	5	25 00	
Night nurse, women.....	1	20 00	
Night attendants, women.....	1	22 00	
Night attendants, women.....	7	20 00	
Attendants, men.....	30	22 00	
Attendants, women.....	20	18 00	
Chief engineer.....	1	85 00	With house rent.
Assistant engineer.....	1	65 00	Without board and lodging.
Night engineer.....	1	50 00	
Day engineer.....	1	35 00	
Night fireman.....	1	54 60	Without board and lodging.
Day fireman.....	1	35 00	
Pump fireman.....	1	35 00	
Engineer's helpers.....	1	40 00	
Engineer's helpers.....	1	35 00	
Engineer's helpers.....	1	30 00	

*Board, lodging and laundry work furnished unless otherwise noted.

TABLE J—Continued.

POSITION.	Number Employed.	Salary per Month.	*Additional Compensation.
Chief cook.....	1	\$60 00	
Assistant cooks.....	1	21 00	
Assistant cooks.....	4	18 00	
Baker.....	1	45 00	
Coldstorekeeper.....	1	30 00	
Store porter.....	1	22 00	
Head farmer.....	1	60 00	With house rent.
Gardener.....	1	35 00	
Assistant gardener.....	1	20 00	
Dairyman.....	1	37 50	
Assistant dairyman.....	1	22 00	
Coachman.....	1	30 00	
Hostler.....	1	22 00	
Teamster.....	1	35 00	Without board and lodging.
Teamsters.....	3	22 00	
Teamster.....	1	20 00	
Florist.....	1	45 00	
Outside supervisor.....	1	35 00	Dinner only.
Assistant outside supervisor.....	1	30 00	
Laundryman.....	1	50 00	Dinner only.
Head ironer.....	1	18 00	
Assorting clerk.....	1	18 00	
Laundress.....	1	16 00	
Ironers.....	4	12 00	
Night watchman.....	1	35 00	
Officers' cook.....	1	30 00	
Assistant officers' cook.....	1	18 00	
Housemaids.....	2	14 00	
Waitress.....	1	14 00	
Waitress.....	1	12 00	
Office porter.....	1	18 00	
Housekeeper.....	1	30 00	
Dining-room attendant, men.....	1	22 00	
Dining-room attendant, women.....	1	18 00	
Housemaids.....	3	12 00	
Waiter.....	1	16 00	
Waitresses.....	4	12 00	
Head seamstress.....	1	25 00	
Seamstress.....	1	12 00	
Head carpenter.....	1	78 00	Without board and lodging.
Head painter.....	1	69 90	Without board and lodging.
Painter.....	1	49 50	Without board and lodging.
Painters.....	2	70 20	Without board and lodging.
Steam fitter.....	1	80 50	Without board and lodging.

*Board, lodging and laundry work furnished unless otherwise noted.

TABLE K.

RECEIPTS FROM SALES COVERED INTO THE GENERAL FUND OF THE STATE
TREASURY DURING THE FISCAL YEAR ENDING SEPTEMBER 30, 1911.

MONTHS.	SOURCE OF RECEIPTS.						
	Generators and Engines.	Hides.	Rags and Iron.	Barrels.	Calves.	Bull.	Total.
October.....	\$800 00	\$1 28					\$801 28
November.....		4 90	\$6 85	\$3 50			15 25
January.....		1 55	5 00				6 55
February.....		1 40					1 40
March.....		4 80	8 25	18 50	\$25 00		56 55
May.....		4 20					4 20
June.....		5 50	10 15	9 00			24 65
July.....		3 70			25 00	\$63 87	92 57
August.....		2 50					2 50
September.....			83 86	4 00			87 86
Total.....	\$800 00	\$29 83	\$114 11	\$35 00	\$50 00	\$63 87	\$1,092 81

EARNINGS DEPOSITED WITH STATE TREASURER.

DATE.	Amount.	Number of Quietus.
October 15, 1910.....	\$800 00	2674
November 10, 1910.....	1 28	2786
December 7, 1910.....	15 25	2999
February 7, 1911.....	6 55	3295
March 7, 1911.....	1 40	3478
April 4, 1911.....	56 55	3683
June 6, 1911.....	4 20	4023
July 5, 1911.....	24 65	4202
August 8, 1911.....	92 57	4253
September 7, 1911.....	2 50	4487
September 23, 1911.....	87 86	4334

TABLE L.

FARM AND GARDEN PRODUCTS, OCTOBER 1, 1910, TO SEPTEMBER 30, 1911

PRODUCTS.	Quantity Raised.	Estimated Value.	Estimated Value of Products Used During Year.		
			In Kitchens.	Outside Departments.	Total
Alfalfa hay.....	39 tons.....	\$585 00		\$272 00	\$272 00
Apples.....	385 bushels.....	153 10	\$133 00		133 00
Asparagus.....	4,735 bunches.....	102 85	102 85		102 85
Beans, green.....	618 bushels.....	434 30	351 70		351 70
Beans, lima.....	231 quarts.....	26 90	47 55		47 55
Beets, young.....	106 bunches.....	3 15	3 15		3 15
Beets.....	366 bushels.....	159 60	98 80		98 80
Blackberries.....	52 quarts.....	4 40	4 40		4 40
Cabbage.....	58 heads.....	2 90	2 90		2 90
Cabbage.....	111 barrels.....	118 00	156 95		156 95
Cantaloupes.....	2,040.....	99 90	101 90		101 90
Carrots.....	5 bushels.....	5 00	5 00		5 00
Catsup.....	91 gallons.....	113 75	15 00		15 00

TABLE L—Continued.

PRODUCTS.	Quantity Raised.	Estimated Value.	Estimated Value of Products Used During Year.		
			In Kitchens.	Outside Departments.	Total.
Cauliflower.....	86 heads....	\$9 90	\$ 9 90		\$9 90
Celery.....	201 dozen....	50 05	134 10		134 10
Cherries.....	3,179 quarts....	120 25	120 25		120 25
Chickens.....	115.....	48 45	48 45		48 45
Clover hay.....	12 tons.....	144 00		\$480 00	480 00
Clover seed.....	11 bushels....	83 95		167 90	167 90
Corn, green.....	1,737 dozen....	187 70	220 85		220 85
Corn.....	213 bushels....	100 10		252 00	252 00
Corn fodder.....	150 shocks....	15 00		31 00	31 00
Cucumbers, large.....	485 dozen....	35 20	51 20		51 20
Cucumber pickles.....	1,400.....	3 25	3 25		3 25
Cucumber pickles.....	9 barrels....	72 00	77 00		77 00
Dairy stock sold.....		143 70			
Eggs.....	607 dozen....	96 50	96 50		96 50
Egg plant.....	150.....	7 60			
Ensilage.....	250 tons.....	875 00		749 50	749 50
Grapes.....	15,511 pounds....	309 95	309 95		309 95
Grape butter.....	102 gallons....	76 50	18 17		18 17
Jelly.....	101 gallons....	101 00	25 18		25 18
Kohlrabi.....	17 bushels....	9 20	5 20		5 20
Hides sold.....	17.....	31 35			
Lettuce.....	5,334 pounds....	299 70	205 75		205 75
Mango peppers.....	453 dozen....	13 30			
Milk.....	25,895 gallons....	4,196 02	4,196 02		4,196 02
Millet.....	5 tons.....	40 00			
Oats.....	592 bushels....	224 96		327 00	327 00
Oats straw.....	10 tons.....	80 00		18 00	18 00
Onions, green.....	18,950 bunches....	278 35	238 85		238 85
Onions.....	380 bushels....	328 50	365 35		365 35
Onion sets.....	25 bushels....	37 50		108 75	108 75
Oyster plant.....	10 bushels....	10 00			
Parsley.....	470 bunches....	13 45	2 75		2 75
Parsnips.....	200 bushels....	100 00	120 20		120 20
Peas.....	102 bushels....	126 00	126 00		126 00
Pears.....	40 bushels....	21 30	10 05		10 05
Pickles.....	39 quarts....	7 80	4 80		4 80
Potatoes.....	400 bushels....	280 00			
Popcorn.....	20 bushels....	20 00	39 00		39 00
Pork, dressed.....	27,909 pounds....	2,981 25	2,981 25		2,981 25
Preserves.....	308 quarts....	76 00	13 00		13 00
Pumpkins.....	2,009.....	40 35	25		25
Quinces.....	2 bushels....	1 25			
Radishes.....	8,711 bunches....	174 50	174 50		174 50
Raspberries.....	1,069 quarts....	115 48	115 48		115 48
Rhubarb.....	4,735 bunches....	73 45	73 45		73 45
Rye.....	10 tons.....	50 00		5 00	5 00
Sage, peppers, etc.....		27 90	9 00		9 00
Spinach.....	72 bushels....	27 40	27 40		27 40
Squash.....	1,028.....	31 20	35 75		35 75
Sorghum.....	10 tons.....	40 00		18 00	18 00
Strawberries.....	2,660 quarts....	201 98	201 98		201 98
Straw.....	8 tons.....	32 00		79 00	79 00
Sweet potatoes.....	233 bushels....	264 05	232 25		232 25
Currants.....	885 quarts....	97 85	100 45		100 45
Tomatoes.....	602 bushels....	297 30	350 00		350 00
Tobacco.....	900 pounds....	81 00			
Turkeys, dressed.....	3.....	7 90	7 90		7 90
Turnips.....	349 bushels....	141 25	12 40		12 40
Veal, dressed.....	2,065 pounds....	223 10	223 10		223 10
Total.....		\$15,391 58	\$12,010 13	\$2,508 15	\$14,518 28

Estimated cost of production.....

\$8,002 43

ANNUAL REPORT

OF THE

Southern Indiana Hospital for the Insane

FOR THE

YEAR ENDING SEPTEMBER 30, 1911
TWENTY-FIRST YEAR

TO THE GOVERNOR

INDIANAPOLIS :
WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING
1912

THE STATE OF INDIANA,

EXECUTIVE DEPARTMENT,

DECEMBER 22, 1911.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,

INDIANAPOLIS, December 22, 1911.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,

Auditor of State.

DECEMBER 22, 1911.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,

Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, December 22, 1911.

L. G. ELLINGHAM,

Secretary of State.

Received the within report and delivered to the printer December 26, 1911.

ED. D. DONNELL,

Clerk Printing Board.

SOUTHERN INDIANA HOSPITAL FOR THE INSANE

1911.

BOARD OF TRUSTEES.

BIRD H. DAVIS, President, Newport, Indiana.
JOSIAH T. AKIN, Vice-President, Sullivan, Indiana
WILLIAM S. BOGY, Treasurer, Bloomfield, Indiana
JOHN T. STOUT, Secretary, Paoli, Indiana.

MEDICAL SUPERINTENDENT.

CHARLES E. LAUGHLIN, M. D.

ASSISTANT PHYSICIANS.

FRANK R. LORD, M. D.
RUTH ALEXANDER, M. D.

INTERNE.

PORTER J. COULTAS, M. D.

BOOKKEEPER.

NORMAN B. MAVITY.

STOREKEEPER.

THOS. B. ROSS.

MATRON.

EMMA LAUGHLIN.

STENOGRAPHER AND RECORD CLERK.

LOUISE E. BRUCKER.

CHAPLAIN.

REV. PAUL PFEIFFER.

REPORT OF THE BOARD OF TRUSTEES.

HON. THOMAS R. MARSHALL, *Governor of Indiana*:

Sir—The trustees of the Southern Indiana Hospital for the Insane respectfully submit the report of the institution for the fiscal year ending September 30, 1911.

Your Excellency having appointed Josiah T. Akin to serve the unexpired term of Fred F. Bays, who resigned; and reappointed Bird H. Davis and William S. Bogy to succeed themselves for another term, the Board organized with the following named officers:

BIRD H. DAVIS.....	President.
JOSIAH T. AKIN.....	Vice-President.
WILLIAM S. BOGY.....	Treasurer.
JOHN T. STOUT.....	Secretary.

Herewith is given a brief summary of the various regular and specific funds available during the year, the amounts expended therefrom and the unexpended balances which reverted to the State Treasury at close of year.

Maintenance Fund.

Appropriation	\$109,395 00	
Appropriation per capita	13,363 97	

Total	\$122,758 97	
Disbursed	121,499 65	

Unexpended and reverted.....		\$1,259 32

Repair Fund.

Appropriation	\$6,000 00	
Disbursed	5,993 54	

Unexpended and reverted		\$6 46

Clothing Fund.

Appropriation	\$4,500 00	
Disbursed	4,361 96	

Unexpended and reverted		\$138 04

Land and Dairy Fund.

Appropriation	\$15,705 27
Disbursed	15,705 27
<hr/>	

Hospital for Sick.

Appropriation	\$59,700 00
Disbursed	59,688 72
<hr/>	

Unexpended and reverted \$11 28

The receipts and earnings were paid to the Treasurer of State as accrued each month, amounting to \$184.83.

The main building of the hospital for the sick has been completed, and contracts have been made for the building of the hydrotherapeutic additions, and the construction work is proceeding satisfactorily.

The work of equipment will be done as rapidly as consistent, and the building should be ready for occupancy in a short time.

The lack of proper hospital accommodations has long been recognized as one of the greatest defects of this institution, and we are pleased to realize that this condition is to be remedied so effectually.

The results attained by the medical staff are very commendable, as indicated by the high percentage of recoveries.

The statistical tables submitted, with the report of the medical superintendent, contain figures relating to the medical department and to financial matters.

The dairy barns having been completed and in readiness, a herd of Holstein cattle was purchased in September, and the dairy department is now in operation.

We anticipate this will be among the most satisfactory of the recent improvements provided here.

The general condition of the institution is in every way satisfactory to us, the organization is efficient and accomplishes good results, and your board unanimously approves and commends the work of the medical superintendent.

Respectfully submitted,

BIRD H. DAVIS,

JOSIAH T. AKIN,

JOHN T. STOUT,

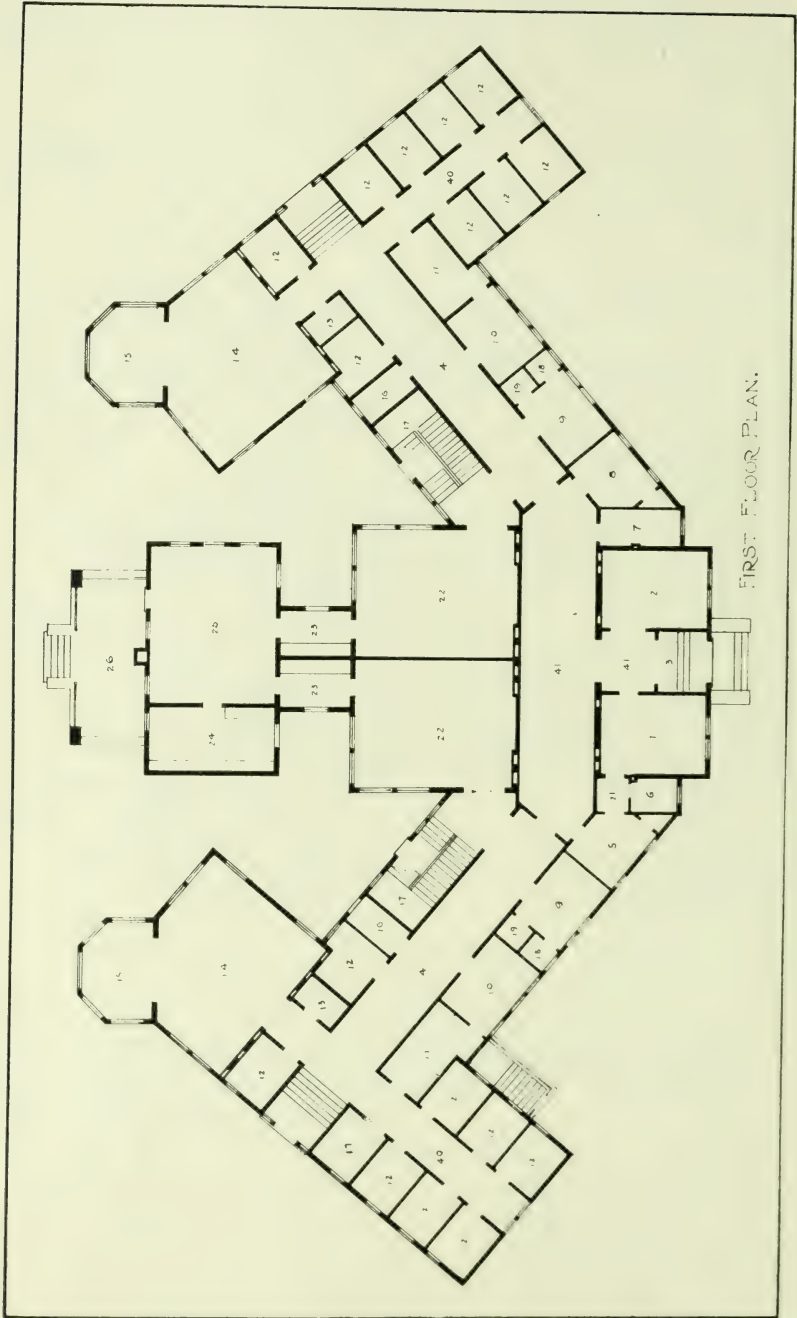
W. S. BOGY,

Board of Trustees.

December 21, 1911.

SCHEDULE OF ROOMS IN HOSPITAL BUILDING.

- | | |
|--------------------------------|--------------------------------|
| 1. Physician's office. | 19. Closet. |
| 2. Reception room. | 20. Closet. |
| 3. Vestibule. | 21. Passage. |
| 4. 40-41 corridors. | 22. Dining room. |
| 5. Physician's chamber. | 23. Scullery and serving room. |
| 6. Physician's bath. | 24. Pantry and store room. |
| 7. Laboratory. | 25. Kitchen. |
| 8. Dispensary. | 26. Porch. |
| 9. Nurses' chamber. | 27. Mop and slop sink closet. |
| 10. Patients' toilet and bath. | 28. Stair to basement. |
| 11. Clothes room. | 29. Mortuary. |
| 12. Single room for patients. | 30. Dormitory. |
| 13. Warm closet. | 31. Operating room. |
| 14. Day room. | 32. Surgeons' preparing room. |
| 15. Solarium. | 33. Anaesthetizing room. |
| 16. Pantry. | 34. Physicians' toilet. |
| 17. Stairs. | 35. Mop and slop sink closet. |
| 18. Nurses' toilet. | 36. Roof garden. |



REPORT OF THE MEDICAL SUPERINTENDENT.

To the Honorable Board of Trustees:

Gentlemen—In fulfillment of the law, the report of the Southern Indiana Hospital for the Insane for the fiscal year ending September 30, 1911, is herewith submitted.

October 1, 1910, there were enrolled.....	798
September 30, 1911, there were enrolled.....	807
Admitted during the year.....	162
Daily average number present	746.53

Died during the year 59, being five per cent. of number under treatment.

There were discharged recovered 49, improved 38, unimproved 7, a total of 94.

The number discharged as *recovered* and *improved* is equal to 54 per cent. of admissions during the year, and is a very creditable result.

The department for men is full to capacity.

The detailed statement of the movement of population will be found in the statistical tables submitted as part of this report.

Financial tables and schedules showing the disbursement of all regular and specific appropriations, and the source and disposition of receipts and earnings are also included.

ORGANIZATION.

The following changes have occurred in the official staff:

In June Dr. P. J. Coultas was appointed interne.

July 1st, Dr. John F. Glover, assistant physician, left the service, having resigned because of ill health.

Dr. Glover was connected with the institution twelve years, rendering meritorious and acceptable service, and it is hoped a prolonged rest will restore his health.

Dr. Frank R. Lord was appointed first assistant physician and placed in charge of Department for Men.

Dr. Lord comes highly recommended, having had eight years' experience in similar institutions.

In September Dr. Arley I. Munson, assistant physician in Department for Women, after eighteen months of acceptable service, resigned to engage in studies preparatory to other work.

Dr. Ruth Alexander was appointed as her successor and given medical charge of the department.

HOSPITAL.

It is gratifying to announce the culmination of prolonged effort in the completion of the main building of the psychopathic hospital.

This structure is two stories, built of red brick laid in red mortar, with stone trimmings. The roof is of standard roofing tile of French pattern.

Extreme width of main building is 108 feet.

Extreme length of main building is 222 feet.

Extreme length of main building with additions is 256 feet.

The floors in operating rooms, bath rooms, dining rooms, kitchen, sculleries, pantry, slop closets, stair halls and stairs are of reinforced concrete and bestolith.

Sketches of floor plans accompany this report showing the arrangement of the wards, which are duplicated in the departments for men and women.

Contracts are made and work is well advanced on the buildings for the hydrotherapeutic additions, and it is probable they will be completed by the end of the calendar year.

The estimated time required for seasoning the building, selecting and installing equipment, indicates its inauguration in March.

The hospital will contain sixty beds.

With this provision for the application of advanced modern methods in the treatment of patients we feel justified in anticipating a shortened hospital residence in the class of cases that are primarily remediable.

The total appropriation for the main building was \$60,000, of which \$11.28 was unexpended and reverted.

The excavating, grading and hauling of materials were all done by patients under the direction and supervision of attendants, and greatly diminished the cost of building. In fact, by this method only were we enabled to build, as the original proposals, including this division of the work, greatly exceeded the amount of the appropriation.

The general contract for the building was made with the International Steel and Iron Construction Co., and they, together with their superintendent of construction, B. B. Johnson, are worthy of

commendation, both for the excellence of their work and the disposition to accept the broadest interpretation of the specifications, although it increased their cost expenditure.

Foltz and Parker, architects, furnished the plans and specifications.

The Huffman-Conklin Co., performed the heating contract.

The Carson-Payson Co., had the contract for plumbing.

DAIRY.

The sanitary dairy barn has been completed and is now in service. This is a fire-proof structure, 40 x 140 feet.

The foundation and floor are of concrete, the walls are brick, the roof of cement tile on steel trusses.

The building is divided into three compartments. The cow barn proper is 40 x 100 feet, and contains iron stalls and stanchions for fifty cows.

A driveway 14 feet wide separates this from a compartment 18 x 24 feet, which serves as a sterilizing room, and another 20 x 24 feet, the feed room, with which are connected two silos, each 16 x 32 feet, with a measured capacity of 100 tons each. The silos were filled with corn ensilage grown on the tract of land recently acquired.

The stock barn is of concrete and frame, the concrete foundation forming the walls of the stock barn and the frame superstructure for storing hay and grain. This structure is 42 x 71 feet.

The herd consists of 38 Holstein cows, thoroughbred and grade, and one thoroughbred Holstein bull.

We trust the sanitary feature of this department may verify the impression of an inspector of the State Pure Food and Drugs Bureau, who after an inspection stated that he "could see no reason why the dairy barn may not be sanitary even after it is used a century."

The farm and garden adjuncts prove doubly beneficial in that they provide needed employment for patients, and in return yield an abundance of wholesome vegetables.

The high grade of subsistence supplies furnished the patients has been maintained, notwithstanding the high prices that have prevailed, and for the first time we record on the part of patients complaints of the monotony of eating fried chicken dinners.

The general repairs to buildings and equipment have been well maintained, requiring the constant services of carpenters, plumbers and painters.

Equipment is renewed as required. A new range has been supplied in the general kitchen and one in the officers' kitchen also.

A connecting entrance has been made on the third floor between the administration building and central block of main building, affording means of communication in case of fire or other emergency.

Officers and employes have in most instances performed their duties in a satisfactory and acceptable manner, while occasionally excellence has been attained, and all are assured of appreciation of the service rendered.

The personal enthusiasm and interest of each member of your board in all matters pertaining to the welfare and improvement of the institution is worthy of comment, and your counsel and advice have often effected the solution of vexing problems.

The continued harmonious and agreeable relations existing between ourselves has been very gratifying to me, and your consideration and many courtesies are appreciated.

Respectfully submitted,

C. E. LAUGHLIN,
Medical Superintendent.

Statistical Tables

GENERAL MEDICAL STATISTICS.

TABLE No. 1.

Movement of Patients, 1910-1911.

	Men.	Women.	Total.
Enrolled October 1, 1910.....	414	384	798
Admitted during year	95	67	162
	<hr/>	<hr/>	<hr/>
Total number treated:.....	509	451	960
Discharged—			
Recovered	17	32	49
Improved	18	20	38
Unimproved	5	2	7
	<hr/>	<hr/>	<hr/>
Total number discharged	40	54	94
Died	30	29	59
	<hr/>	<hr/>	<hr/>
Total number discharged and died	70	83	153
Remaining September 30, 1911.....	439	368	807
Daily average attendance	397.800	348.738	746.538
Per cent. of recoveries on admission			30
Per cent. of recoveries on total number treated.....			5
Per cent. of deaths on total number treated.....			5

TABLE No. 3.

Statistics of Patients Admitted October 1, 1910, to September 30, 1911.

CIVIL CONDITION.

	AGE PERIOD.															
	Under 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		Over 70.		Un-known.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Single.....	6	3	15	4	6	2	3	2	3	1	3	2	0	0	0	0
Married.....	0	0	6	11	13	15	12	7	7	3	5	1	3	0	0	1
Widowed.....	0	0	0	0	0	1	1	1	0	3	1	4	1	2	0	0
Divorced.....	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0
Unknown.....	0	0	0	0	1	0	1	1	1	1	0	0	1	0	3	0
Total.....	6	3	21	15	20	20	20	11	11	8	9	7	5	2	3	1

NATIVITY.

Arkansas.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Austria.....	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
England.....	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0
Germany.....	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Georgia.....	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Illinois.....	0	0	1	1	0	1	0	1	1	0	0	0	0	0	0	0
Indiana.....	5	3	16	9	16	14	15	7	7	6	5	3	2	0	2	1
Iowa.....	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Ireland.....	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Kentucky.....	1	0	2	2	1	2	3	0	1	1	1	2	0	1	0	0
Kansas.....	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Maryland.....	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Minnesota.....	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Mississippi.....	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Missouri.....	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Ohio.....	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
Pennsylvania.....	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
Tennessee.....	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0
Virginia.....	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
West Virginia.....	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Not known.....	0	0	0	0	1	0	0	1	1	0	0	1	0	1	0	0
Total.....	6	3	21	15	20	20	20	11	11	8	9	7	5	2	3	1

COLOR.

White.....	5	3	20	10	20	18	19	11	9	7	7	7	5	0	3	1
Colored.....	1	0	1	5	0	2	1	0	2	1	2	0	0	2	0	0
Total.....	6	3	21	15	20	20	20	11	11	8	9	7	5	2	3	1

EDUCATION.

College.....	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
Common school.....	6	3	19	13	16	16	17	11	8	6	6	5	3	1	0	0
None.....	0	0	2	2	0	2	3	0	1	1	2	1	1	1	0	0
Unknown.....	0	0	0	0	3	2	0	0	2	1	0	1	1	0	3	1
Total.....	6	3	21	15	20	20	20	11	11	8	9	7	5	2	3	1

TABLE No. 3—Continued.

ALLEGED CAUSE OF INSANITY.

	AGE PERIOD.															
	Under 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		Over 70.		Un-known	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Cigarette habit.....	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Dissipation.....	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Epilepsy.....	0	0	1	3	1	1	1	1	0	0	1	0	0	0	0	0
Heredity.....	4	2	6	6	4	7	4	3	7	4	3	1	1	0	0	0
Injury to head.....	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Morphine habit.....	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
Puerperum.....	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Senility.....	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Shock.....	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Unknown.....	1	1	13	6	13	11	12	6	4	4	4	6	4	0	3	1
Total.....	6	3	21	15	20	20	20	11	11	8	9	7	5	2	3	1

PREVIOUS OCCUPATION.

Blacksmiths.....	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
Bookkeepers.....	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Brickmasons.....	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Butchers.....	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Cigarmakers.....	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Clerks.....	0	1	0	0	2	0	0	0	1	0	0	0	0	0	0	0
Cooks.....	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Dressmakers.....	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Engineers.....	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Farmers.....	1	0	5	0	7	0	12	0	2	0	3	0	3	0	2	0
Firemen, railroad.....	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Housework.....	0	1	0	15	0	18	0	10	0	7	0	4	0	1	0	1
Laborers.....	1	0	9	0	2	0	0	0	5	0	3	0	1	0	0	0
Merchants.....	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Milliners.....	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Miners.....	1	0	3	0	2	0	2	0	0	0	0	0	0	0	0	0
Mine superintendent.....	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Motormen.....	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Molders.....	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Oilworkers.....	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Physicians.....	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Piano tuners.....	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Plumbers.....	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Porters.....	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Printers.....	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salesmen.....	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
Students.....	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surveyors.....	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Tailors.....	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Varnishers.....	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
None.....	1	1	1	0	1	1	0	1	0	1	0	1	0	1	1	0
Total.....	6	3	21	15	20	20	20	11	11	8	9	7	5	2	3	1

TABLE No. 4.

FORM OF INSANITY AND PREVIOUS DURATION OF DISEASE IN PATIENTS ADMITTED OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

Duration of Disease.	Under 1 Month.		1 to 3 Months.		3 to 6 Months.		6 to 12 Months.		1 to 2 Years.		2 to 5 Years.		5 to 10 Years.		10 to 20 Years.		Unknown.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Form of Insanity.																				
Mania, acute.	13	7	7	3	5	1	5	2	2	0	0	0	0	0	0	0	6	0	38	13
Mania, chronic.	0	0	0	0	0	0	0	0	4	3	4	3	5	2	2	2	2	2	17	12
Mania, epileptic.	0	0	0	1	0	1	0	0	0	1	2	0	0	3	2	1	1	0	4	7
Mania, puerperal.	0	1	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Mania, recurrent.	1	1	0	2	0	1	0	0	1	0	1	0	0	0	0	0	0	0	14	11
Melancholia.	2	2	3	5	5	1	3	2	0	3	4	0	1	1	1	0	11	8	14	11
Paresis.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	19	15
Senile dementia.	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	2	0	2	5
Total	16	11	11	14	10	5	8	6	7	7	11	4	6	6	5	2	21	12	95	67

TABLE No. 5.

DURATION OF MENTAL DISEASE IN PERSONS WHO RECOVERED OR DIED DURING THE FISCAL YEAR 1910-1911.

PERIOD.	FIRST ADMITTED TO ANY HOSPITAL.				ALL OTHER ADMISSIONS.			
	Duration Before Admission.		Hospital Residence.		Whole Duration.		Whole Known Period of Mental Diseases.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Recovered—								
Under 1 month.....	4	13	0	0	0	0	0	0
From 1 to 3 months.....	2	6	3	5	4	1	1	0
From 3 to 6 months.....	4	4	2	13	2	0	0	0
From 6 to 12 months.....	2	3	5	7	4	0	0	0
From 1 to 2 years.....	2	1	3	4	5	1	2	1
From 2 to 5 years.....	2	5	3	3	1	2	3	3
From 5 to 10 years.....	1	0	1	0	1	1	1	0
From 10 to 20 years.....	0	0	0	0	0	0	0	0
Over 20 years.....	0	0	0	0	0	0	0	0
Unknown.....	0	0	0	0	0	0	0	0
Total.....	17	32	17	32	17	32	7	8
Died—								
Under 1 month.....	2	5	2	4	0	0	0	0
From 1 to 3 months.....	4	3	6	3	3	0	0	0
From 3 to 6 months.....	5	3	3	1	5	0	0	0
From 6 to 12 months.....	2	4	3	3	3	0	0	1
From 1 to 2 years.....	5	4	3	3	4	0	0	1
From 2 to 5 years.....	2	1	7	6	6	0	0	0
From 5 to 10 years.....	1	1	3	2	2	1	1	0
From 10 to 20 years.....	3	0	2	6	5	0	1	0
Over 20 years.....	0	0	1	0	2	3	3	5
Unknown.....	6	8	0	0	0	0	0	0
Total.....	30	29	30	29	30	29	5	7

TABLE No. 6.

Cause of Death of Those Who Died During the Fiscal Year 1910-1911.

Cause.	Men.	Women.	Total.
Abscess of lungs.....	1	0	1
Apoplexy	1	0	1
Arterio sclerosis	1	0	1
Bronchitis, chronic	0	1	1
Carcinoma	0	1	1
Diarrhea	1	0	1
Dilatation of heart	1	0	1
Erysipelas	1	1	2
Exhaustion mania acute	1	3	4
Exhaustion mania chronic	4	5	9
Exhaustion mania epileptic	3	1	4
Exhaustion melancholia	1	4	5
Exhaustion senile dementia	1	1	2
Hemiplegia	2	0	2
Influenza	0	2	2
Intracapsular fracture of hip.....	1	0	1
Mitral stenosis	0	1	1
Nephritis, chronic	1	0	1
Oedema of lungs	1	0	1
Organic heart disease	0	1	1
Paresis	4	0	4
Pernicious anæmia	1	0	1
Pneumonia	0	4	4
Rheumatism	1	0	1
Sepsis	2	0	2
Status epilepticus	0	1	1
Strangulated hernia	0	1	1
Tuberculosis, pulmonary	1	2	3
Total	30	29	59

TABLE No. 7.

Daily Average Attendance During Fiscal Year 1910-1911.

1910.	Men.	Women.	Total.
October	394.097	359.354	753.451
November	396.366	359.567	755.933
December	392.225	353.968	746.193
1911.			
January	392.484	350.451	742.935
February	394.000	349.000	743.000
March	395.806	344.806	740.612
April	394.000	343.000	737.000
May	396.000	344.742	740.742
June	398.067	347.433	745.500
July	403.064	343.323	746.387
August	408.483	343.387	751.870
September	409.000	345.833	754.833
Average	397.800	348.738	746.538

TABLE No. 8.

MOVEMENT OF POPULATION FROM OPENING OF INSTITUTION.

YEAR	Received.		DISCHARGED.						Died.		Enrolled Close of Year.		Tempo- rarily Absent.		Daily Average Attendance.		Total.
			Recovered.		Improved.		Unim- proved.										
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1890-1891	224	191	9	5	3	0	4	1	0	0	202	179	10	15	141 290	94 150	235 440
1891-1892	62	71	31	31	8	2	8	0	0	0	194	198	10	10	186 500	173 000	359 500
1892-1893	67	58	39	32	1	4	3	1	1	0	204	198	13	15	193 000	187 500	380 500
1893-1894	52	59	32	25	3	0	3	4	0	1	207	217	11	17	197 000	190 500	387 500
1894-1895	44	30	17	8	1	0	0	3	1	0	213	223	15	19	199 000	202 000	401 000
1895-1896	41	37	25	21	0	4	5	5	0	0	214	221	13	17	199 000	201 000	400 000
1896-1897	33	31	15	14	0	3	2	3	0	1	217	215	21	17	200 000	202 000	402 000
1897-1898	95	73	18	9	1	6	2	2	0	0	277	257	27	30	234 000	225 000	459 000
1898-1899	88	42	27	20	9	14	1	9	2	0	300	247	16	21	268 000	226 000	494 000
1899-1900	83	107	17	9	9	6	3	2	2	1	333	310	30	34	290 000	256 000	546 000
1900-1901	103	87	29	44	29	18	2	4	2	0	346	306	24	26	310 000	282 000	592 000
1901-1902	85	90	16	24	31	16	15	2	0	0	342	324	29	26	325 200	294 320	619 520
1902-1903	75	69	11	26	31	8	4	1	1	35	336	335	20	28	315 470	301 820	617 290
1903-1904	99	80	14	40	24	12	3	5	2	0	330	362	30	34	329 423	297 554	626 977
1904-1905	95	79	21	22	30	23	4	3	1	44	357	327	33	26	318 053	293 281	611 334
1905-1906	86	62	12	22	28	6	6	3	0	1	363	334	30	16	334 787	309 087	643 874
1906-1907	72	53	19	14	19	11	4	3	0	0	361	340	24	26	339 354	315 981	655 335
1907-1908	93	73	9	21	19	14	11	5	0	0	375	346	32	20	344 644	318 046	662 690
1908-1909	94	77	20	14	23	18	1	5	0	0	403	368	26	24	372 567	341 999	714 566
1909-1910	87	79	28	20	10	23	2	1	0	0	414	384	21	25	388 674	348 029	736 703
1910-1911	95	67	17	32	18	20	5	2	0	0	439	368	27	19	397 800	348 738	746 538
Total	1,773	1,505	426	455	297	208	88	55	10	6	411						

TABLE No. 9.

Summary of Statistics for the Year Ending September 30, 1911.

(Prepared in conformity to resolution adopted by the National Conference of Charities and Correction, Philadelphia, May, 1906.)

Movement of Population.

	Males.	Females.	Total.
Number of inmates enrolled October 1, 1910.....	414	384	798
Temporarily absent	21	25	46
Number of inmates received during year.....	95	67	162
Number of inmates discharged and died during year	70	83	153
Number of inmates enrolled September 30, 1911	439	368	807
Temporarily absent	27	19	46
Daily average attendance of inmates for year ending September 30, 1911.....	397.800	348.738	746.538
Average number of officers and employees			121

Expenditures.

Ordinary expenses—	Per Capita.	Total.
Salaries and wages.....	\$55.284	\$41,296 49
Subsistence	60.672	45,322 04
Clothing	5.839	4,361 96
Office, domestic and outdoor expenses.....	46.695	34,881 12
Ordinary repairs	8.023	5,993 54
Total	\$176.513	\$131,855 15
Extraordinary expenses—		
New buildings and furnishing of same.....		\$59,688 72
Permanent improvements		15,705 27
Total		\$75,393 99
Grand total expenses		\$207,249 14
Receipts and earnings		184 83
Net total expenses.....		\$207,064 31

TABLE No. 10.

CLASSIFIED EXPENDITURES, OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

CURRENT EXPENDITURES.	Amount.	Per Capita Based on Daily Average Attendance (747).
<i>Administration.</i>		
Trustees or directors.....	\$1,200 00	\$1.607
Officers.....	8,538 76	11.431
Teachers, literary.....		
Teachers, industrial.....		
Attendants.....	19,524 44	26.137
Domestics, laborers and other employees.....	12,033 29	16.109
Guards.....		
Total.....	\$41,296 49	\$55.284
<i>Subsistence.</i>		
Fresh meats.....	\$12,581 26	\$16.842
Salted meats and lard.....	2,996 10	4.011
Fish (fresh and cured), oysters, etc.....	55 75	.075
Butter, eggs and poultry.....	6,448 16	8.632
Vegetables.....	2,366 62	3.168
Fresh fruits.....	329 64	.441
Dried fruits.....	2,299 26	3.078
Canned goods.....		
Breadstuffs, cereals, beans, etc.....	6,116 17	8.188
Vinegar and syrup.....	635 39	.851
Tea, coffee and sugar.....	6,225 86	8.334
Milk.....	4,566 45	6.113
All other food supplies.....	701 38	.939
Total.....	\$45,322 04	\$60.672
<i>Clothing, Etc.</i>		
Clothing.....	\$2,815 86	\$3.769
Shoes.....	435 90	.584
Tailor and sewing room supplies.....	717 56	.960
Miscellaneous.....	392 64	.526
Total.....	\$4,361 96	\$5.839
<i>Office, Domestic and Outdoor Departments.</i>		
School supplies.....		
Library, newspapers and periodicals.....	\$34 95	\$0.047
Stationery and printing.....	583 55	.781
Industrial department.....		
Furniture, fixtures, bedding and other household equipment.....	8,064 93	10.797
Laundry supplies, soaps and other cleansers.....	3,256 57	4.360
Medicines, instruments and other sick ward supplies.....	425 56	.570
Postage, telegraphing and telephoning.....	469 83	.629
Freight and transportation.....	849 79	1.138
Stable, farm, garden, provender, etc.....	10,755 16	14.398
Ice.....		
Tobacco.....	859 22	1.150
Music and amusements.....	485 15	.649
Expense of discharged inmates.....		
Fuel.....	6,685 90	8.950
Light.....		
Engineers' supplies.....	1,676 61	2.244
Insurance.....	137 50	.184
Water.....		
Other classifications.....	596 40	.798
Total.....	\$34,881 12	\$46.695

TABLE No. 10—Continued.

CURRENT EXPENDITURES.	Amount.	Per Capita Based on Daily Average Attendance (747).
<i>Ordinary Repairs and Minor Improvements.</i>		
Materials.....	\$4,417 54	\$5.914
Labor.....	1,576 00	2.109
Total.....	\$5,993 54	\$8.023
Grand total of current expenditures.....	\$131,855 15	\$176.513
Less earnings paid into State Treasury.....	184 83	.247
Less amounts due from counties for clothing, maintenance, etc.....	4,851 41	6.495
Net cost to State.....	\$126,818 91	\$169.771
EXTRAORDINARY EXPENDITURES.	Amount.	
New buildings and furniture.....	\$59,688 72	
Permanent improvements.....	15,705 27	
Land.....		
Total extraordinary expenditures.....	\$75,393 99	

APPROPRIATIONS.

FUND.	Act. Approved.	Regular or Specific.	Amount Available During Year.	Expended During Year.	BALANCE.	
					Reverting to State Treasury.	Available for Further Use.
Maintenance	March 9, 1909	Regular	\$122,758 97	\$121,499 65	\$1,259.32	
Repairs	March 9, 1909	Regular	6,000 00	5,993 54	6.46	
Clothing	March 9, 1909	Regular	4,500 00	4,361 96	138.04	
Land and Dairy	March 9, 1909	Specific	15,705 27	15,705 27		
Hospital for the sick	March 9, 1909	Specific	59,700 00	59,688 72	11.28	
Total			\$208,664 24	\$207,249 14	\$1,415.10	

Financial Exhibits

VOUCHERS.

MAINTENANCE.

The following is a complete list of vouchers approved by the Board of Trustees for the fiscal year ending September 30, 1911, the originals of which, properly signed and sealed, may be found at the office of the Auditor of State, duplicates thereof on file in the office of the Hospital:

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
1.	Sawyer Biscuit Co.....	Crackers	\$15 75
2.	Swift & Co.....	Beef	1,136 07
3.	Wm. J. Moxley.....	Butterine	276 20
4.	The S. Moskowitz Co.....	Eggs	108 75
5.	Vickery Brothers.....	Chickens and molasses.....	196 11
6.	Ragon Brothers.....	Hominy and lemons.....	22 62
7.	J. F. Shafer.....	Milk	358 05
8.	Reid, Murdoch & Co.....	Cheese and rolled oats.....	56 37
9.	Peter VanSchaak & Sons.....	Tartaric acid	16 00
10.	J. M. Robinson, Norton Co.....	Toweling	6 00
11.	Carson, Pirie, Scott & Co.....	Combs	4 02
12.	Chandler Coal Co.....	Coal	513 46
13.	Standard Oil Co.....	Oil	30 75
14.	Sterne & Maley Co.....	Starch and bluing	19 71
15.	Dr. C. E. Laughlin, Med. Supt.....	Contingent expenses	245 46
16.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	3,237 97
17.	Sawyer Biscuit Co.....	Crackers	15 75
18.	Swift & Co.....	Beef	828 17
19.	The S. Moskowitz Co.....	Eggs	120 00
20.	Vickery Brothers.....	Poultry	209 51
21.	Wm. J. Moxley.....	Butterine	276 20
22.	R. H. Pennington & Co.....	Potatoes and fruits.....	455 00
23.	Parsons & Scoville Co.....	Cabbage and mops.....	73 32
24.	W. M. Hoyt & Co.....	Rice, prunes and matches.....	114 23
25.	Ragon Brothers	Beans, syrup, etc.....	303 77
26.	Ross W. Weir & Co.....	Tea	50 20
27.	Karn, Closter & Co.....	Coffee	315 00
28.	J. F. Shafer.....	Milk	378 00
29.	Reid, Murdoch & Co.....	Cheese	32 27
30.	Mackey, Nisbet Co.....	Gingham and san silk.....	21 47
31.	The Ichenhauser Co.....	Queensware	93 60
32.	Blackman & Lunkenheimer.....	Queensware	34 56
33.	Standard Oil Co.....	Turpentine and gasoline.....	95 50
34.	Chandler Coal Co.....	Coal	590 49
35.	Peter VanSchaak & Sons.....	Soda ash and sponges.....	127 15
36.	U. S. Laundry Soap & Sup. Co..	Acid and Japan wax.....	18 41
37.	Wm. B. Burford.....	Typewriter paper.....	1 00
38.	Franklin MacVeagh & Co.....	Peaches, oats and hominy...	102 12
39.	Dr. C. E. Laughlin, Med. Supt.....	Contingent expenses	282 61
40.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	3,182 60
41.	Ziliak & Schafer Milling Co.....	Flour and meal.....	177 00
42.	Sawyer Biscuit Co.....	Crackers	15 75
43.	Wm. J. Moxley.....	Butterine	350 80
44.	Loewenthal Produce Co.....	Turkeys	135 56
45.	Vickery Brothers	Chickens	67 05
46.	W. J. Quan & Co.....	Cranberries	11 45

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
47.	R. H. Pennington & Co.....	Oranges, lemon and holly....	\$27 65
48.	Franklin MacVeagh & Co.....	Dried fruit and hominy	242 60
49.	Ragon Brothers	Potatoes, syrup, candy, etc....	488 79
50.	W. M. Hoyt Co.....	Beans, kraut, etc.....	228 87
51.	Karn, Closter & Co.....	Coffee	315 00
52.	Parsons & Scoville Co.....	Salt and pepper.....	19 30
53.	Carson, Pirie, Scott & Co.....	Muslin	5 50
54.	Mackey-Nisbet Co.	Sheeting and muslin.....	605 05
55.	J. M. Robinson, Norton Co.....	Swiss	8 12
56.	Rhoads & Fillman.....	Scrim	208 16
57.	Evansville Broom Co.....	Brooms and mops.....	118 25
58.	Standard Oil Co.....	Turpentine, oil, etc.....	230 70
59.	Wm. B. Burford.....	Printing and stationery.....	93 90
60.	Improved Disinfecting Co.....	Insecticide	80 00
61.	Boetticher & Kellogg Co.....	Shovels and detergent.....	25 00
62.	James M. Boyd.....	Hogs	1,401 00
63.	U. S. Laundry Soap & Supply Co..	Oxalic acid, etc.....	59 81
64.	U. S. Laundry Soap & Supply Co..	Chipped soap, etc.....	537 08
65.	National Chemical Co.....	Washing soda	42 00
66.	Chandler Coal Co.....	Coal	901 62
67.	J. F. Shafer.....	Milk	390 60
68.	Geo. W. Baker & Co.....	Apples	45 00
69.	Geo. Janton & Sons Co.....	Laundry supplies	16 79
70.	Bird H. Davis.....	Salary and expenses	93 50
71.	W. S. Bogy.....	Salary and expenses.....	93 65
72.	John T. Stout.....	Salary and expenses.....	85 30
73.	Fred F. Bays.....	Salary and expenses.....	84 55
74.	Dr. C. E. Laughlin, Med. Supt....	Contingent expenses.....	465 63
75.	Dr. C. E. Laughlin, Med. Supt....	Payroll	3,036 74
76.	Boonville Milling Co.....	Flour and meal	266 40
77.	Igleheart Brothers	Flour	255 00
78.	Ziliak & Schafer Milling Co.....	Flour	159 00
79.	Swift & Co.....	Beef	1,088 58
80.	Swift & Co.....	Beef	828 76
81.	Morris & Co.....	Butterine	390 00
82.	The S. Moskowitz Co.....	Eggs	72 00
83.	Vickery Brothers	Chickens and tobacco.....	166 05
84.	W. M. Hoyt Co.....	Dried fruit, kraut, etc.....	239 12
85.	Franklin MacVeagh & Co.....	Dried fruit, hominy, etc.....	191 68
86.	Durand & Kasper Co.....	Rolled oats and cheese.....	51 29
87.	Karn Closter Co.....	Coffee	126 79
88.	Swift & Co.....	Cheese	30 08
89.	Newburgh Tobacco Co.....	Tobacco	259 56
90.	Dow Wire & Iron Works.....	Iron beds	369 00
91.	A. L. Swanson.....	Incandescent lamps	344 97
92.	The Manhattan Rubber Mfg. Co...	Rubber mats	46 98
93.	J. M. Robinson, Norton Co.....	Muslin and oil cloth.....	122 29
94.	Mackey-Nisbit Co.....	Ticking, toweling, cards.....	259 76
95.	Indiana Reformatory	Buckets	32 40
96.	U. S. Laundry Soap & Supply Co..	Oxalic acid	78 65
97.	The Sanitas Co.....	Disinfectant	78 30
98.	Wm. B. Burford.....	Printing and stationery.....	64 46
99.	Evansville Gas & Electric Co....	Coke	82 00
100.	Chandler Coal Co.....	Coal	957 55
101.	Standard Oil Co.....	Oil, cup grease, etc.....	36 40
102.	Marblehead Lime Co.....	Lime	162 00
103.	The Thompson & Chute Soap Co...	Soda ash	238 36
104.	James B. Clow & Sons.....	Furnace and torch.....	6 05
105.	Ragon Brothers.....	Cabbage and tobacco, etc....	89 00
106.	Reid, Murdoch & Co.....	Cream of tartar.....	28 50
107.	A. H. Altschul.....	Brushes	498 75

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
108.	J. F. Shafer.....	Milk	\$390 60
109.	Dr. C. E. Laughlin, Med. Supt.....	Contingent expenses	304 67
110.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	3,093 42
111.	The Chas. W. Brizius Co.....	Flour and meal	407 45
112.	Sawyer Biscuit Co.....	Crackers	15 75
113.	Swift & Co.....	Beef	1,077 84
114.	W. J. Moxley.....	Butterine	413 50
115.	The S. Moskowitz Co.....	Eggs	73 30
116.	Vickery Brothers.....	Chickens and salt.....	137 43
117.	Durand & Kasper Co.....	Evaporated apples	92 00
118.	Parsons & Scoville Co.....	Rice, kraut, cabbage and mops	185 54
119.	Ragon Brothers	Beans, sugar, scourine, etc....	539 55
120.	Ross W. Weir & Co.....	Coffee	319 25
121.	Reid, Murdoch & Co.....	Cheese and prunes.....	121 06
122.	Rhoads & Fillman.....	Bed spreads	142 10
123.	Mackey-Nisbet Co.....	Muslin	36 48
124.	J. M. Robinson, Norton Co.....	Oil cloth and embroidery- cotton	42 20
125.	The Ichenhauser Co.....	Queensware	20 25
126.	Blackman & Lunkenheimer.....	Queensware	25 00
127.	Chas. F. Artes	Silverware	16 00
128.	Improved Disinfecting Co.	Insecticide	75 00
129.	Chandler Coal Co.....	Coal	595 13
130.	Central Supply Co.....	Rubber hose	15 20
131.	Standard Oil Co.....	Oil	128 83
132.	Thompson & Chute Soap Co.....	Starch	25 20
133.	U. S. Laundry Soap & Supply Co..	Starch and blue	21 74
134.	National Chemical Co.....	Washing soda	101 50
135.	Boonville Milling Co.....	Flour	645 00
136.	J. F. Shafer.....	Milk	352 80
137.	Franklin MacVeagh & Co.....	Evaporated peaches	77 50
138.	Dr. C. E. Laughlin, Med. Supt.....	Contingent expenses	361 47
139.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	2,935 11
140.	Dr. C. E. Laughlin, Med. Supt.....	Traveling expenses	32 85
141.	Fred. F. Bays.....	Salary and expenses.....	57 80
142.	Boonville Milling Co.....	Meal	15 15
143.	Sawyer Biscuit Co.....	Crackers	15 75
144.	Swift & Co.....	Beef	985 04
145.	Evansville Packing Co.....	Bacon and pork plates.....	223 62
146.	Vickery Brothers.....	Chickens	128 48
147.	R. H. Pennington & Co.....	Potatoes, cabbage, etc.....	559 38
148.	Durand & Kasper Co.....	Figs	68 25
149.	Reid, Murdoch & Co.....	Dried apples and kraut	140 30
150.	Ragon Brothers	Salt, lemons and flakes.....	21 12
151.	Ross W. Weir & Co.....	Coffee	319 10
152.	Parsons & Scoville Co.....	Rice	55 00
153.	Swift & Co.....	Cheese	30 92
154.	Illinois Pure Aluminum Co.....	Aluminum ware	97 84
155.	U. S. Laundry Soap & Supply Co..	Parafine and duck	27 54
156.	Standard Oil Co.....	Turpentine, gasoline, etc.....	122 89
157.	James S. Kirk & Co.....	Toilet soap	27 00
158.	Cudahy Packing Co.....	Soap polish	50 00
159.	Improved Disinfecting Co.....	Insecticide	37 50
160.	The National Ammonia Co.....	Ammonia	63 50
161.	The Heldt Co.....	Fertilizer, oats and plow points	55 70
162.	The Charles W. Brizius Co.....	Mixed feed	22 50
163.	Z. T. Lamodin.....	Sweet potatoes	25 00
164.	Franklin MacVeagh & Co.....	Dried peaches	69 25
165.	Henry A. Dreer	Garden and flower seed.....	205 36
166.	Chandler Coal Co.....	Coal	875 00

No.	Claimant.	On Account of.	Amount.
167.	J. F. Shafer.....	Milk	\$390 60
168.	The S. Moskowitz Co.....	Eggs	45 35
169.	John T. Stout	Salary and expenses.....	93 35
170.	Bird H. Davis.....	Salary and expenses.....	94 25
171.	Dr. C. E. Laughlin, Med. Supt.....	Contingent expenses	341 66
172.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	3,061 95
173.	Swift & Co.....	Beef	1,079 76
174.	Wm. J. Moxley.....	Butterine	263 20
175.	Vickery Brothers.....	Eggs	21 75
176.	The S. Moskowitz & Co.....	Eggs and chickens.....	222 46
177.	Ragon Brothers	Sugar, beans, syrup, etc.....	1,224 80
178.	Franklin MacVeagh & Co.....	Cheese and figs	79 00
179.	Ross W. Weir & Co.....	Coffee	399 00
180.	John H. Hibben Dry Goods Co.....	Sheeting and cotton	95 51
181.	J. M. Robinson, Norton Co.....	Sheeting, pins, etc.....	105 02
182.	Mackey-Nisbet Co.....	Ticking and toweling	216 00
183.	The Schaefer Rubber Co.....	Rubber sheeting	101 00
184.	Indiana Reformatory.....	Whisk brooms	15 00
185.	Wm. B. Burford.....	Printing and stationery.....	124 85
186.	Peter VanSchaack & Sons.....	Drugs	7 21
187.	Bagby-Howe Drug Co.	Drugs	22 00
188.	J. F. Bomm Drug Co.....	Drugs	19 07
189.	The National Ammonia Co.....	Ammonia	63 50
190.	The Ray Chemical Co.....	Drugs, etc.....	13 55
191.	J. F. Shafer	Milk	378 00
192.	Chandler Coal Co.....	Coal	437 35
193.	W. M. Hoyt Co.....	Dried fruit, kraut, etc.....	244 76
194.	H. L. Dix.....	Hay	165 58
195.	W. S. Bogy	Salary and expenses.....	93 60
196.	Dr. C. E. Laughlin, Med. Supt.....	Contingent expenses.....	736 66
197.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	3,083 89
198.	Swift & Co.....	Beef	1,318 16
199.	Schwarzschild & Sulzberger	Salt pork	142 73
200.	Wm. J. Moxley.....	Butterine	194 00
201.	The S. Moskowitz Co.....	Eggs and chickens	207 14
202.	Ragon Brothers	Lemons, scourine, etc.....	25 13
203.	Reid-Murdoch Co.....	Peaches and coffee	250 47
204.	Durand & Kasper Co.....	Figs	52 25
205.	Ross W. Weir & Co.....	Tea	102 28
206.	Parsons & Scoville Co.	Beans	120 45
207.	Newburgh Tobacco Co.....	Tobacco	257 04
208.	Mackey-Nisbet Co.	Combs and thimbles	18 00
209.	J. M. Robinson, Norton Co.....	Flag, scissors and ribbon....	30 90
210.	The Ichenhauser Co.....	Serving trays	10 50
211.	Indiana Reformatory	Brooms, pans and buckets....	51 72
212.	Improved Disinfecting Co.....	Insecticide	75 00
213.	Wm. B. Burford	Annual reports, etc.....	112 63
214.	Clifford Hardware Co.....	Wheelbarrows, shovels, etc....	36 25
215.	The Wm. H. Moon Co.....	Buxus suffruticosa	40 00
216.	The Heldt Co.....	Farm implements	15 85
217.	Chandler Coal Co.....	Coal	309 78
218.	Evansville Leather & Belting Co.	Force cups	16 00
219.	M. C. Hunt.....	Soda ash	282 63
220.	Marblehead Lime Co.....	Lime	162 00
221.	U. S. Laundry Soap & Supply Co..	Soap and acid.....	474 56
222.	Franklin MacVeagh & Co.....	Cheese, rice and oats.....	81 04
223.	Sawyer Biscuit Co.....	Crackers	15 75
224.	Armour & Co.....	Glycerine	6 75
225.	Standard Oil Co.....	Turpentine, gasoline and paraffine	143 21
226.	The Chas. W. Brizius Co.....	Meal	16 50

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
227.	Bagby-Howe Drug Co.....	Plasters and flaxseed.....	\$16 65
228.	J. F. Shafer.....	Milk	390 60
229.	Dr. C. E. Laughlin, Med. Supt.....	Contingent expenses	373 09
230.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	3,168 19
231.	Igleheart Brothers	Flour	607 50
232.	Ziliak & Schafer Milling Co.....	Flour	375 00
233.	Sawyer Biscuit Co.....	Crackers	15 00
234.	Swift & Co.....	Beef	997 52
235.	W. C. Routh & Co.....	Bacon	127 25
236.	Armour & Co.....	Salt Pork	62 51
237.	Wm. J. Moxley.....	Butterine	388 00
238.	Vickery Brothers	Chickens	128 69
239.	The S. Moskowitz Co.....	Eggs	59 10
240.	Ragon Brothers	Rice, potatoes, etc.....	137 50
241.	R. H. Pennington & Co.....	Potatoes and beans.....	82 62
242.	Durand & Kasper Co.....	Evaporated peaches	75 75
243.	Reid, Murdoch & Co.....	Coffee, figs, etc.	341 00
244.	W. M. Hoyt & Co.....	Rolled oats	15 34
245.	Swift & Co.....	Cheese	23 99
246.	Standard Oil Co.....	Turpentine and gasoline....	71 50
247.	Meyer Brothers Drug Co.....	Drugs and sundries	49 90
248.	U. S. Laundry Soap & Supply Co.	Blue and shirt bands.....	8 15
249.	Thompson & Chute Soap Co.....	Japan wax	5 10
250.	C. H. Menden Coal Co.....	Coal	343 92
251.	Evansville Carriage Works.....	Phaeton	200 00
252.	Bennett Hutchinson & Co.....	Boiler insurance	137 50
253.	Boetticher & Kellogg Co.....	Freight and drayage.....	4 54
254.	J. F. Shafer	Milk	378 00
255.	B. H. Davis	Salary and expenses.....	94 45
256.	John T. Stout.....	Salary and expenses.....	85 85
257.	J. T. Akin	Salary and expenses.....	178 50
258.	W. S. Bogy	Salary and expenses.....	87 10
259.	Dr. C. E. Laughlin, Med. Supt....	Contingent expenses	510 81
260.	Dr. C. E. Laughlin, Med. Supt....	Payroll	3,227 94
261.	Armour & Co.....	Hams	148 25
262.	Schwarzschild & Sulzberger Co....	Salt pork	70 18
263.	Miller & Hart	Bacon	141 08
264.	Wm. J. Moxley	Butterine	382 22
265.	The S. Moskowitz Co.....	Eggs and chickens	309 62
266.	W. M. Hoyt Co.....	Apples and peaches	209 00
267.	Vickery Brothers.....	Molasses and salt.....	80 42
268.	Durand and Kasper.....	Rolled oats and cheese.....	36 16
269.	Reid, Murdoch & Co.....	Coffee and figs.....	295 25
270.	Ragon Brothers	Potatoes and scourine, candy, etc.	184 12
271.	Franklin MacVeagh & Co.....	Soap and crackers	90 85
272.	James S. Kirk & Co.....	Toilet soap	27 00
273.	Indiana Reformatory	Brooms and mops.....	153 60
274.	Carson, Pirie, Scott & Co.....	Bunting, flags, etc.....	40 60
275.	Mackey-Nisbet Co.....	Fans	5 00
276.	C. H. Menden Coal Co.....	Coal	429 01
277.	Standard Oil Co.....	Oil and grease.....	30 34
278.	The Heldt Co.....	Hay forks, pulleys, etc.....	21 92
279.	Boonville Milling Co.....	Corn, bran and meal.....	305 75
280.	Fry Brothers & Co.....	Washing soda	101 50
281.	U. S. Laundry Soap & Supply Co.	Oxalic acid, duck and felt... 85 34	
282.	R. H. Pennington & Co.....	Potatoes and melons	84 25
283.	J. F. Shafer.....	Milk	390 60
284.	James Sargent	Hay	155 60
285.	Dr. C. E. Laughlin, Med. Supt....	Contingent expenses	701 67
286.	Dr. C. E. Laughlin, Med. Supt....	Payroll	3,171 74

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
287.	Sawyer Biscuit Co.....	Crackers	\$10 00
288.	Swift & Co.....	Beef and hams	2,203 77
289.	W. C. Routh & Co.....	Bacon	135 00
290.	The S. Moskowitz Co.....	Eggs and chickens	346 16
291.	W. J. Moxley.....	Butterine	194 00
292.	Durand & Kasper.....	Cheese and prunes	158 00
293.	Reid, Murdoch & Co.....	Flgs	38 13
294.	R. H. Pennington & Co.....	Potatoes and melons.....	241 50
295.	A. Englehard & Sons Co.....	Coffee	277 50
296.	Franklin MacVeagh & Co.....	Syrup, rice, oats, etc.....	119 51
297.	Ragon Brothers	Vinegar, hominy, etc.....	48 48
298.	Parsons & Scoville Co.....	Barley	15 00
299.	Newburgh Tobacco Co.....	Tobacco	260 06
300.	J. M. Robinson, Norton Co.....	Oil cloth	18 00
301.	Vickery Brothers	Metal polish	4 85
302.	Mackey-Nisbet Co.	Sheeting and needles	28 01
303.	Rhoads & Fillman.....	Thread	49 50
304.	Boetticher-Kellogg Co.	Toilet paper	28 80
305.	Peter VanSchaack & Sons.....	Drugs, etc.	10 95
306.	J. F. Bomm Drug Co.....	Drugs, etc.	58 50
307.	Standard Oil Co.....	Oil, turpentine, gasoline....	106 07
308.	Evansville Gas & Electric Co....	Coke	65 28
309.	C. H. Menden Coal Co.....	Coal	350 45
310.	U. S. Laundry Soap & Supply Co..	Starch and nets.....	31 04
311.	J. F. Shafer.....	Milk	390 60
312.	Harry Stevens & Son.....	Cows	2,900 00
313.	R. B. McConnell.....	Cows	2,600 00
314.	Dr. C. E. Laughlin, Med. Supt....	Contingent expenses	490 32
315.	Dr. C. E. Laughlin, Med. Supt....	Payroll	3,011 90
316.	Dr. C. E. Laughlin, Med. Supt....	Traveling expenses	119 93
317.	Northern Ohio Blanket Mills Co..	Blankets	900 00
318.	The John Van Range Co.....	Ranges	525 00
319.	E. K. Ashby Co.....	Rugs and carpet.....	567 95
320.	Hibben-Hollweg Co.	Binding	15 75
321.	J. M. Robinson, Norton Co.....	Oil cloth	21 60
322.	Mackey-Nisbet Co.	Dry goods	300 36
323.	Rhoads & Fillman	Dry goods	188 83
324.	The John H. Hibben Dry Goods Co.	Toweling	26 22
325.	Carson, Pirie, Scott & Co.....	Toweling and pins	14 32
326.	The Ichenhauser Co.....	Queesware	159 45
327.	Indiana Reformatory	Brooms	150 00
328.	The Thompson & Chute Soap Co..	Oxalic acid	106 54
329.	The Humane Restraint Co.....	Mitts and wristlets.....	81 00
330.	The Ray Chemical Co.....	Drugs	5 60
331.	Meyer Brothers Drug Co.....	Drugs	89 38
332.	Marblehead Lime Co.....	Lime	162 00
333.	Fry Brothers & Co.....	Acetic acid	6 09
334.	The Chas. W. Brizius Co.....	Flour and bran	825 00
335.	Armour & Co.....	Hams	619 61
336.	A. Englehard Sons Co.....	Coffee	510 64
337.	Durand & Kasper Co.....	Prunes	94 50
338.	W. J. Moxley.....	Butterine	233 00
339.	Reid, Murdoch & Co.....	Cheese	67 65
340.	Ziliak & Shafer Milling Co.....	Flour and meal.....	547 50
341.	Peter VanSchaack & Sons.....	Sponges	16 00
342.	Franklin MacVeagh & Co.....	Syrup and figs	206 58
343.	Evansville Packing Co.....	Pork plates and bacon.....	1,170 18
344.	Ragon Brothers	Groceries	221 95
345.	Parsons & Scoville Co.....	Sugar, oats and barley.....	1,512 28
346.	Vickery Brothers	Potatoes and chickens.....	621 45
347.	The Moskowitz Co.....	Eggs	72 66

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
348.	J. F. Shafer	Milk and filling silos.....	\$512 50
349.	Standard Oil Co.....	Turpentine and gasoline.....	141 68
350.	A. L. Swanson.....	Arc lamps	31 20
351.	C. H. Menden Coal Co.....	Coal	411 02
352.	Indiana Reformatory	Furniture	831 00
353.	Indiana Reformatory	Tinware	80 96
354.	Swift & Co.	Beef	1,193 28
355.	Wm. B. Burford.....	Stationery and printing.....	186 71
356.	J. F. Hollowell.....	Hogs	794 50
357.	B. H. Davis.....	Salary and expenses.....	103 55
358.	W. S. Bogy.....	Salary and expenses.....	88 90
359.	J. T. Akin.....	Salary and expenses.....	85 20
360.	J. T. Stout.....	Salary and expenses.....	89 35
361.	Lant Brothers	Hay and corn	643 92
362.	Dr. C. E. Laughlin, Med. Supt.....	Contingent expenses	737 96
363.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	3,504 46
364.	Burroughs Adding Machine Co.....	Adding machine	269 50
Total			\$121,499 65

REPAIRS.

The following is a complete list of vouchers paid from the appropriation for repairs, the originals of which are on file at the office of the Auditor of State, duplicates being filed in the office of the Hospital:

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
1.	Dr. C. E. Laughlin, Med. Supt.....	Emergent expenses	\$32 57
2.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	160 00
3.	Evansville Paint & Varnish Co....	Varnish, glass, etc.	101 73
4.	A. L. Swanson	Electrical supplies	47 80
5.	DeVoe & Reynolds.....	Paints	8 05
6.	Dr. C. E. Laughlin, Med. Supt.....	Emergent expenses	116 33
7.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	160 00
8.	Dr. C. E. Laughlin, Med. Supt.....	Emergent expenses	46 11
9.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	160 00
10.	G. H. Lounsberry & Sons.....	Upholsterers' supplies	15 66
11.	Evansville Paint & Varnish Co....	Linseed oil	47 88
12.	Central Supply Co.....	Pipe and fittings.....	350 83
13.	James B. Clow & Sons	Pig lead, bands and tees.....	61 00
14.	Crane Co.	Packing and hydrants	61 60
15.	Dr. C. E. Laughlin, Med. Supt.....	Emergent expenses	169 89
16.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	160 00
17.	August Schmitt Sons Co.....	Repairs to roof.....	285 00
18.	Central Supply Co.....	Soil pipe, babbitt metal, etc..	37 14
19.	James B. Clow & Sons.....	Tees for water pipe.....	10 75
20.	Dr. C. E. Laughlin, Med. Supt.....	Emergent expenses	92 80
21.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	160 00
22.	Boetticher-Kellogg Co.	Screen, nails, etc.....	36 50
23.	Dr. C. E. Laughlin, Med. Supt.....	Emergent expenses	128 82
24.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	160 00
25.	Boetticher-Kellogg Co.	Roofing	43 23
26.	Laib Co.	Bends and tees	2 82
27.	Central Supply Co.	Soil pipe	28 89
28.	Evansville Paint & Varnish Co....	Asphaltum, brushes and glass	20 30
29.	Dr. C. E. Laughlin, Med. Supt.....	Emergent expenses	3 35
30.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	106 00
31.	Evansville Paint & Varnish Co....	Paints	32 00
32.	E. C. Johnson.....	White lead	160 24

No.	Claimant.	On Account of.	Amount.
33.	The Paul & Ortmeier Co.....	Ventilator and base.....	\$12 00
34.	Central Supply Co.....	Gauge cocks	11 25
35.	Evansville Leather & Belt. Co....	Shoemakers' supplies	22 61
36.	A. L. Swanson Co.....	Lamp cord	31 65
37.	A. L. Swanson Co.....	Wire and cross arms	119 84
38.	Clifford Hardware Co.....	Chair seats and screws	8 94
39.	Laib Co.....	Floats and stems	6 40
40.	G. H. Lounsberry & Sons.....	Upholsterers' supplies	104 51
41.	Dr. C. E. Laughlin, Med. Supt.....	Emergent expenses	28 96
42.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	170 00
43.	J. A. and W. Bird Co.....	Paint	122 40
44.	Laib Co.....	Galvanized pipe	92 63
45.	Henry Vogt Machine Co.....	Absorber tubes	76 32
46.	A. L. Swanson, Co.....	Electrical supplies	47 00
47.	Central Supply Co.....	Plugs	1 58
48.	Wolfen-Luhning Lumber Co.....	Posts and lumber.....	154 91
49.	Dr. C. E. Laughlin, Med. Supt.....	Emergent expenses	1 00
50.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	170 00
51.	Green Engineering Co.....	I-beams, tile, etc.....	186 32
52.	Laib Co.....	Pipe and fittings.....	167 70
53.	Central Supply Co.....	Pipe and fittings.....	15 23
54.	Dr. C. E. Laughlin, Med. Supt.....	Emergent expenses	44 04
55.	International Steel & Iron Construction Co.	Repairs to Arcade	392 40
56.	Evansville Paint & Varnish Co.....	Paint	4 00
57.	E. C. Johnson.....	Brushes	2 90
58.	Dr. C. E. Laughlin, Med. Supt.....	Emergent expenses	9 92
59.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	170 00
60.	Norvell-Shapleigh Hardware Co....	Screws, hammers, etc.....	2 67
61.	Wolfen-Luhning Co.....	Lumber	26 40
62.	Fred Geiger & Sons	Repairing furniture.....	30 00
63.	Laib & Co.....	Pipe, bolts, leather, etc.....	41 64
64.	Central Supply Co.....	Pipe and fittings.....	220 02
65.	Central Supply Co.....	Pipe and fittings.....	415 70
66.	Dr. C. E. Laughlin, Med. Supt.....	Emergent expenses.....	75 31
Total			\$5,993 54

CLOTHING.

The following vouchers were paid from this fund:

No.	Claimant.	On Account of.	Amount.
1.	Clothes Shop.....	Men's suits.....	\$1,500 00
2.	Edward N. Hill.....	Pants	211 40
3.	J. M. Robinson-Norton Co.....	Men's hose.....	90 00
4.	The John H. Hibben Dry Goods Co.	Muslin	177 66
5.	Mackey-Nisbet Co.....	Calico	33 73
6.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	56 50
7.	John H. Hibben Dry Goods Co.....	Buttons and thread.....	61 80
8.	Carson, Pirie, Scott & Co.....	Buttons, needles, etc.....	8 54
9.	J. M. Robinson-Norton Co.....	Binding, needles and laces...	21 50
10.	Howitt-Warner Co.....	Flannel	57 56
11.	Dr. C. E. Laughlin, Med. Supt.....	Shoes (contingent).....	3 00
12.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	56 50
13.	Carson, Pirie, Scott & Co.....	Safety pins.....	4 56
14.	Dr. C. E. Laughlin, Med. Supt.....	Payroll	56 50
15.	Carson, Pirie, Scott & Co.....	Buttons and hose.....	114 11
16.	Mackey-Nisbet Co.....	Thread and hose.....	26 15

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
17.	Dr. C. E. Laughlin, Med. Supt.	Payroll	\$48 11
18.	J. M. Robinson-Norton Co.	Shoe laces	28 80
19.	Mackey-Nisbet Co.	Garter web	4 20
20.	The Spool Cotton Co.	Thread	47 06
21.	Dr. C. E. Laughlin, Med. Supt.	Payroll	56 50
22.	Indiana Reformatory	Shoes and shirts	328 50
23.	J. H. Schultz Co.	Ladies' shoes	176 40
24.	J. M. Robinson-Norton Co.	Overalls and buttons	108 45
25.	Carson, Pirie, Scott & Co.	Gloves, ties and braces	121 50
26.	Mackey-Nisbet Co.	Underwear, collars, etc.	101 10
27.	Dr. C. E. Laughlin, Med. Supt.	Payroll	45 53
28.	J. M. Robinson-Norton Co.	Cheviot	81 85
29.	The Geo. DeWalt Co.	Calico	64 22
30.	Dr. C. E. Laughlin, Med. Supt.	Clothing payroll	36 50
31.	Edward N. Hill	Hats	78 00
32.	Mackey-Nisbet Co.	Calico and hose	72 79
33.	Dr. C. E. Laughlin, Med. Supt.	Payroll	36 50
34.	Carson, Pirie, Scott & Co.	Ladies' hose	37 20
35.	Carson, Pirie, Scott & Co.	Ladies' hose	12 00
36.	Carson, Pirie, Scott & Co.	Calico	25 43
37.	Rhoads & Fillman	Hoods and hosiery	349 31
38.	J. M. Robinson-Norton Co.	Corsets	22 50
Total			\$4,361 96

SPECIFIC FUNDS.

HOSPITAL FOR THE SICK.

The following vouchers were paid from this fund:

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
2.	Feltz & Parker	Architects' services	\$572 60
3.	Dr. C. E. Laughlin, Med. Supt.	Advertising	41 25
4.	International Steel & Iron Construction Co.	On contract for hospital	7,200 00
5.	Evansville Courier Publishing Co.	Advertising	15 00
6.	International Steel & Iron Construction Co.	Hospital for the sick	8,000 00
7.	Evansville Journal Co.	Advertising	15 00
8.	International Steel & Iron Construction Co.	On hospital building	8,245 00
9.	International Steel & Iron Construction Co.	On contract hospital	7,800 00
10.	International Steel & Iron Construction Co.	On contract hospital building	8,225 00
11.	The Carson-Payson Co.	Plumbing	891 35
12.	International Steel & Iron Construction Co.	Balance on contract for hospital building	9,826 00
13.	A. L. Swanson Co.	Contract for wiring	957 00
14.	Carson-Payson Co.	Balance on plumbing	3,366 25
15.	Huffman-Conklin Co.	Heating contract	4,183 00
16.	Foltz & Parker	Architects' contract	301 27
17.	Herbert Foltz	Inspection trips	50 00
Total			\$59,688 72

LAND AND DAIRY.

The following vouchers were paid from this fund:

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
4.	International Steel & Iron Construction Co.....	Estimate on stock barn.....	\$1,350 00
5.	Christ. Zanzler & Son.....	Estimate on dairy barn.....	3,000 00
6.	International Steel & Iron Construction Co.....	Estimate on stock barn.....	1,350 00
7.	Christ. Zanzler & Son.....	Estimate on dairy barn.....	4,200 00
8.	International Steel & Iron Construction Co.....	Estimate on stock barn.....	1,200 00
9.	International Steel & Iron Construction Co.	Estimate on stock barn.....	800 00
10.	Christ. Zanzler & Son.....	Estimate on dairy barn.....	2,000 00
11.	Foltz & Parker.....	Architects' services.....	145 66
12.	Christ. Zanzler & Son.....	Dairy barn.....	854 78
13.	International Steel & Iron Construction Co.....	Stock barn.....	771 20
14.	International Steel & Iron Construction Co.....	Retaining wall.....	33 63
Total			\$15,705 27

SUMMARY.

Maintenance vouchers paid and filed	\$121,499 65
Repairs vouchers paid and filed	5,993 54
Clothing vouchers paid and filed	4,361 96
Hospital for the sick vouchers paid and filed	59,688 72
Land and dairy vouchers paid and filed	15,705 27
<hr/>	
	\$207,249 14

The total amount, \$207,249.14, distributes to the following accounts:

Acid, acetic	\$19 32
Acid, boric	6 00
Acid, muriatic	60
Acid, oxalic	311 40
Acid, tartaric	16 00
Adding machine	269 50
Advertising	159 50
Alcohol	13 78
Alumina soapalite	10 00
Ammonia	75 00
Ammonia, anhydrous	105 56
Antiphlogestin	1 00
Apples	65 00
Apples, dried	664 30
Architects' services	1,069 53
Arc lamps	31 20

Arnica	\$3 06
Asphaltum	3 50
Aspirin	5 00
Awls	15
Axle grease	2 76
Babbit metal	10 20
Bacon	1,230 14
Bags, paper	2 00
Baking powder	28 80
Bananas	30 21
Bands, shirt	95
Barn, dairy	10,054 78
Barn, stock	5,504 83
Barley	48 90
Beans	711 37
Beds	369 00
Bedspreads	142 10
Beef	12,581 26
Belt fasteners	9 00
Bismuth-subnitrate	20 75
Blankets	900 00
Blank forms	341 43
Blotters	4 00
Bluing	20 40
Bolts	5 20
Books	15 00
Bowls, aluminum	19 44
Bowls, oysters	16 20
Boxes, filing	26 25
Box rent, P. O.	8 00
Bran	188 75
Brazil duck	58 50
Bristles	25
Brown mixture	9 70
Brooms	393 90
Brooms, whisk	15 00
Brushes, bath	42 00
Brushes, cornice	16 50
Brushes, floor	132 00
Brushes, hair	16 50
Brushes, mattresses	15 00
Brushes, nail	19 00
Brushes, paint	14 90
Brushes, radiator	6 00
Brushes, sanitary	24 00
Brushes, scrub	142 50
Brushes, sink	27 00
Brushes, steel block	10 50
Brushes, tooth	27 00

Brushes, Wall	\$7 75
Buckets	68 85
Buckwheat	5 80
Bunting	27 55
Burying horse	2 50
Butter	143 55
Butterine	3,386 40
Buttons	20 04
Buxus suffruticosa	40 00
Cabbage	191 23
Cable wire	12 10
Calico	192 77
Calomel	5 10
Camphor gum	2 70
Camphor opium	3 00
Candles	3 12
Candy	100 08
Cans, fruit	2 30
Cans, milk	19 80
Capsules	8 15
Cards, playing	15 00
Cards, postal	10 00
Carpets	33 95
Cement	24 89
Cement, leather	10
Chairs	787 90
Chair seats	8 00
Chambers	55 16
Cheese	397 89
Cheviot	81 85
Chickens	1,782 78
Chloroform	87
Cigars	10 50
Clamps	20 25
Clay	14 40
Cleavers, butcher's	1 25
Clippers	2 50
Clover seed	21 33
Coal	6,514 78
Cocaine hydrochlor	2 10
Codene sulphate	4 60
Coffee	3,276 93
Coke	171 12
Collars	22 50
Combs	25 02
Corsets	22 50
Cotton, absorbent	28 50
Cotton, embroidery	7
Cotton, darning	
Cotton, batting	

Corn, feed	\$262 88
Corn, seed	6 36
Cows	5,500 00
Crackers	166 15
Cranberries	24 00
Cream of tartar	28 50
Cross arms	4 80
Cultivator	4 00
Cup grease	3 50
Cups and saucers	43 20
Curtains, swiss	8 12
Curry combs	75
Desk	45 00
Detergent	20 00
Dippers	1 20
Directory	6 00
Dishes, butter	20 75
Dishes, vegetable	75 60
Disinfectant	78 30
Ditch, cleaning	20 85
Door checks	4 80
Duck for mangle	71 57
Eggs	903 30
Electric irons	46 13
Electric sparkers	4 65
Electric supplies	94 80
Entertainment in town	99 90
Envelopes	32 16
Escaped patient	5 80
Excelsior	5 31
Expressage	21 12
Fans	5 00
Feeding tubes	4 50
Feed, mixed	22 50
Felt, laundry	42 11
Fertilizer	56 00
Figs	441 58
Files	65
Filling silos	162 50
Fish	42 00
Flags	14 60
Flannel	57 56
Flax seed	1 40
Floats and stems	6 40
Floor hooks	40
Flour	4,098 75
Freight charges	353 39
Force cups	16 00
Fire shoes	30
Food	208 30

Garlands	81 50
Gaskets	19 45
Gasoline	141 75
Gate hooks	45
Gelatine	90
Gingham	37 00
Glass	12 28
Gloves	84 00
Glue	1 50
Glycerine	6 75
Gourlands extract	25
Grommets	3 60
Gauge cocks	11 25
Gauge glasses	2 40
Hams	923 55
Hammer	55
Harness	38 00
Hat's, men's	78 00
Hay	937 85
Hay forks	4 50
Hinges	3 44
Hoes	4 80
Hogs	2,195 50
Holly wreaths	9 00
Hominy	126 22
Hoods	64 10
Horseshoeing	87 30
Hose, rubber	26 45
Hosiery, men's	231 98
Hosiery, women's	316 38
Hospital for the sick	49,296 00
Hospital heating	4,183 00
Hospital plumbing	4,257 60
Hospital wiring	957 00
Hydrants, fire	57 60
Hydrogen peroxide	75
Hyoscine sulphate	9 90
Ice	2 00
Ice cream	30 00
Ink	6 00
Ink, shoemakers'	15
Insecticide	335 00
Insurance	137 50
Iodine tincture	5 50
Iron	12 33
Keys	39 50
Key rings	1 92
Klein spurs	2 90
Knives, shoe	45
Kraut	207 49

Labels	\$3 75
Laces, shoes	34 80
Lamp cord	37 65
Lamps, incandescent	344 97
Lasts, shoe	30
Lead, pig	50 00
Lead, red	2 00
Lead, white	160 24
Leather, imitation	2 25
Leather, sole	34 50
Lemons	40 50
Letter heads	29 90
Lime	489 75
Lines	18 00
Linen, table	76 83
Lumber	112 31
Marking tape	28 25
Matches	7 75
Mats, rubber	46 98
Meal	143 00
Medical journals	10 00
Milk	4,566 45
Millet	3 00
Miter box	9 00
Mitts	48 00
Mops	157 35
Moss	22 86
Mucilage	3 30
Mules	440 06
Muslin	679 23
Nails	4 40
Nails, shoe	2 40
Neckties	16 50
Needles	5 84
Needles, hypodermic	3 90
Nets, laundry	6 90
Newspapers	9 95
Nutmeg	2 95
Oats, feed	42 00
Oats, seed	13 20
Oats, rolled	182 16
Oilcloth	82 80
Oil, coal	14 82
Oil, cylinder	205 02
Oil, engine	91 76
Oil, linseed	47 88
Oil, neat's foot	1 00
Oil, olive	4 50
Ointment	3 25
Ointment boxes	1 50
Onions	34 00

Onion sets	\$47 90
Opium, tinct	1 35
Oranges	48 40
Orchestra employed	356 35
Overalls	108 00
Oxide zinc	13
Oysters	13 75
Packing	137 40
Pads, collar	3 00
Pants	188 50
Pans, dust	8 03
Pans, food	25 20
Paper, carbon	2 40
Paper fasteners	1 00
Paper, toilet	51 80
Paraffine	47 18
Paragoric	12 50
Peaches, dried	679 02
Peanuts	28 00
Peas, cow	48 45
Penholders	90
Pens	7 20
Pens, marking	1 50
Pencils	5 28
Pepper	11 25
Phaeton	200 00
Phenacetine	6 30
Pills	3 96
Pins	7 92
Pins, hair	6 48
Pins, safety	8 88
Pipes and stems	1 70
Pipe and fittings.....	1,315 50
Pipe, sewer	69 51
Pitchers, cream	11 79
Pitchers, water	34 56
Plasters	28 50
Plates	21 60
Plates, aluminum	23 24
Plow beam	1 20
Plow points	4 90
Plugs	1 58
Plumbers' furnace	3 70
Polish, metal	4 85
Polish, shoes	6 90
Pork plates, salt	842 41
Posts	74 25
Potassium chlorate	1 70
Potatoes, Irish	1,992 99
Potatoes, sweet	25 00
Prunes	545 38

Pulley	\$3 00
Queensware	45 25
Quinine	9 50
Rakes	90
Ranges	525 00
Rasps	60
Reception flakes	19 10
Regrinding plowpoint	1 20
Rent for wigs	1 00
Repairs to boiler walls	196 32
Repairs to buildings	392 40
Repairs to furniture	30 00
Repairs to harness	1 00
Repairs to laundry machinery	80 00
Repairs to machinery	21 60
Repairs to pumps	85 05
Repairs to refrigerating machinery	2 20
Repairs to roof	285 00
Repairs to sewing machine	18 00
Repairs to typewriter	2 75
Repairs to vehicles	19 50
Repairs to water softener	26 70
Reports, printing of	108 33
Rhubarb	1 15
Ribbon	12 60
Ribbon, typewriter	3 00
Rice	532 30
Rivets	3 35
Roofing	43 23
Rope	15 44
Rope, hitches	30
Rubber bands	1 90
Rubber for garters	4 20
Rubber sheeting	101 00
Rugs	534 00
Sage	1 55
Salaries of attendants	19,524 44
Salaries of carpenter and painter	1,348 00
Salaries of other employes	12,005 93
Salaries of officers	8,538 76
Salaries of orchestra	48 00
Salaries of trustees	1,200 00
Salt	79 20
Salts and peppers	18 00
Sand paper	2 28
San silk	2 40
Sapolio	4 50
Sawblades	4 61
Scissors	7 50
Scourine	117 25
Screens	29 50

Screws	\$2 28
Scrim	211 16
Seam dampner	2 50
Sheeting	502 12
Shirts	72 00
Shoes for men	256 50
Shoes for women	179 40
Shovels	9 75
Sieves	3 00
Silverware	16 00
Siring cow	3 00
Slop jars	46 00
Smooth on	8 00
Soap, chipped	925 50
Soap, laundry	76 00
Soap, polish	50 00
Soap, toilet	54 00
Soda ash	634 39
Soda salicylate	1 20
Soda, washing	245 00
Solder	11 25
Spices, mixed	95
Sponges	29 75
Springs	6 64
Stamps	300 00
Starch	81 14
Steel	97
Straw	22 23
Strawberries	15 75
Strops, razor	1 20
Sugar	2,804 10
Suits	1,500 00
Suspenders	21 00
Suspensory	2 00
Syringes, fountain	92
Syringes, hypodermic	1 50
Syringes, urethral	1 00
Syrup	613 06
Tablets, commercial	7 08
Tablets, medicinal	3 80
Tacks	11 32
Tapioca	81
Tea	152 48
Telegrams	11 93
Telephone receiver	1 75
Telephone rent	96 00
Telephone tolls	51 90
Thermometers	4 50
Thimbles	4 65
Thread	172 56
Thread, mangle	7 50

Thread, shoe	\$1 15
Threshing rye	12 68
Ticking	562 41
Tile setting	167 47
Timothy seed	4 40
Tobacco	859 22
Torch, gasoline	2 35
Torpedoes, air	3 50
Toweling	154 92
Trap screws	11 70
Tincture ferrie chlor	40
Traveling expenses	505 88
Trays, serving	10 50
Trousers	211 40
Tubes, absorber	76 32
Tubing, pillow case	112 00
Turkeys	278 60
Turpentine	667 68
Twine	30 98
Underwear	67 50
Valves	10 34
Varnish	88 50
Vaseline	95
Ventilator and base	12 00
Veterinarian service	34 00
Victor needles	24
Victor records	31 85
Vinegar	30 30
Warburg's tincture	80
Washboards	4 80
Washers	10 94
Watermelons	88 33
Wax, Japan	10 28
Wax, sealing	10
Wax, shoe	05
Wheelbarrows	22 50
Wheel for plow	1 00
Whetstone	25
Whip	50
Whiskey	21 00
Whiting, Spanish	3 80
Wire fencing	2 00
Wire	115 04
Wristlets	33 00
Yeast	61 25

 \$207.442 02

Deduct discount, cartage and containers.....	192 88
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 \$207.249 14

EXPENDITURES BY MONTHS.

FUND.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total.
Maintenance.....	\$6,243 29	\$7,720 93	\$10,706 77	\$11,498 42	\$9,094 93	\$8,068 35	\$9,212 52	\$8,517 25	\$8,820 03	\$7,651 07	\$14,311 31	\$19,744 78	\$121,499 65
Repairs.....	192 57	433 91	206 11	866 86	585 69	325 32	204 59	708 40	665 84	805 69	186 82	811 74	5,993 54
Clothing.....	2,069 29	208 90	61 06	188 37	136 56	881 48	182 57	187 29	37 20	12 00	25 43	371 81	4,361 96
Hospital for the sick.....			572 60	41 25			7,200 00	8,015 00	8,260 00	7,800 00	9,116 35	18,683 52	59,688 72
Land and Dairy.....	4,350 00	1,350 00	5,400 00	800 00	2,000 00			1,771 64				33 63	15,705 27
Total.....	\$12,855 15	\$9,713 74	\$16,946 54	\$13,304 90	\$11,817 18	\$9,275 15	\$16,799 68	\$19,199 58	\$17,783 07	\$16,268 76	\$23,639 91	\$39,645 48	\$207,249 14

STATEMENT OF EARNINGS.

MONTHS.	<i>Source of Receipt.</i>		Total.
	Weighing.	Sale of Rags, Bones, Iron, etc.	
1910.			
October	\$1 35	\$1 35
November	1 80	1 80
December	2 10	2 10
1911.			
January	1 50	\$42 25	43 75
February	1 95	1 95
March	6 85	6 85
April	2 25	2 25
May	45	45
June	60	63 63	64 23
July	60	57 75	58 35
August	75	75
September	1 00	1 00
Total	\$21 20	\$163 63	\$184 83

EARNINGS DEPOSITED WITH STATE TREASURER.

DATE.	Amount.	No. of Quietus.
1910.		
October	\$1 35	2774
November	1 80	2991
December	2 10	3175
1911.		
January	43 75	3285
February	1 95	3409
March	6 85	3686
April	2 25
May	45	4019
June	64 23	4203
July	58 35	4248
August	75	4488
September	1 00
	\$184 83	

FARM AND GARDEN PRODUCTS, 1910-1911.

PRODUCTS.	Quantity Raised.	Estimated Value.	Estimated Value of Products Used During Year.		
			In Kitchen.	In Outdoor Departments.	Total.
Beans, butter	52 gallons	\$28 60	\$28 60		\$28 60
Beans, string	907 1/4 bushels	779 90	779 90		779 90
Beans, navy	33 bushels	79 20	79 20		79 20
Beets	291 dozen bnch.	47 15	47 15		47 15
Cabbage	216 dozen	86 40	86 40		86 40
Canteloupes	10 dozen	4 60	4 60		4 60
Celery	30 dozen bnch.	9 90	9 90		9 90
Corn, dry	890 bushels	445 00		\$445 00	445 00
Corn, green	1,394 dozen	174 38	174 38		174 38
Corn, pop.	86 pounds	1 51		1 51	1 51
Cucumbers	71 dozen	10 65	10 65		10 65
Ensilage	199 tons	2,090 00		2,090 00	2,090 00
Fodder	550 shocks	41 25		41 25	41 25
Greens, turnip	3 bushels	9 00	9 00		9 00
Hay	13 1/2 tons	230 25		230 25	230 25
Lard	12,927 pounds	1,344 17	1,344 17		1,344 17
Lettuce	162 bushels	53 05	53 05		53 05
Mangoes	597 dozen	31 29	31 29		31 29
Milk	246 gallons	36 90	36 90		36 90
Oats, sheaf	284 dozen	99 40		99 40	99 40
Onions, green	886 dozen bnch.	177 20	177 20		177 20
Onions, dry	27 bushels	24 95	24 95		24 95
Parsnips	420 bushels	195 80	195 80		195 80
Peaches	22 bushels	33 00	33 00		33 00
Peas, cow	6 tons	72 00		72 00	72 00
Peas, green	91 bushels	167 00	167 00		167 00
Pork	20,059 pounds	2,078 67	2,078 67		2,078 67
Potatoes, Irish	14 bushels	10 30	10 30		10 30
Potatoes, sweet	608 bushels	427 20	427 20		427 20
Radishes	652 dozen bnch.	118 90	118 90		118 90
Rhubarb	175 dozen bnch.	35 00	35 00		35 00
Rye	193 1/2 bushels	145 12		145 12	145 12
Straw	10 tons	50 00		50 00	50 00
Tomatoes	410 1/2 bushels	332 55	332 55		332 55
Turnips	65 bushels	31 50	31 50		31 50
Veal	108 pounds	12 96	12 96		12 96
Watermelons	134	9 38	9 38		9 38
Total value		\$9,524 13	\$6,349 60	\$3,174 53	\$9,524 13
Less farm pay-roll					1,011 75
					\$8,512 38

AVERAGE PRICES PAID, 1910-1911.

Flour, per barrel	\$4.407
Fresh beef, per 100 pounds	7.804
Ham, per pound	.150
Potatoes, per bushel	.709
Beans, per bushel	2.244
Butter, per pound	.133
Milk, per gallon	.178
Tea, per pound	.197
Coffee, per pound	.179
Sugar, per 100 pounds	5.366
Eggs, per dozen	.182

INVENTORY.

Real estate, 240 acres.....	\$92,693 24
Buildings	599,935 93
Equipment	162,507 59
Total	\$855,136 76

OFFICERS AND EMPLOYEES, SEPTEMBER 30, 1911.

POSITION.	Number Em- ployed.	Salary per Month.	Additional Compensation (Board, Laundry, etc.)
Trustees.....	4	\$25 00	Non-resident.
Medical superintendent.....	1	208 33	Board and laundry.
Assistant physician.....	1	100 00	Board and laundry.
Assistant physician.....	1	83 33	Board and laundry.
Interne.....	1	40 00	Board and laundry.
Bookkeeper.....	1	100 00	Boards at home.
Storekeeper.....	1	75 00	Board and laundry.
Matron.....	1	50 00	Board and laundry.
Chaplain.....	1	20 00	Resides in city.
Stenographer and record clerk.....	1	65 00	Board and laundry.
General night watch.....	1	30 00	Board and laundry.
General night watch.....	1	25 00	Board and laundry.
Usher and marking clerk.....	1	35 00	Board and laundry.
Supervisors.....	2	40 00	Board and laundry.
Attendants.....	2	30 00	Board and laundry.
Attendants.....	4	26 00	Board and laundry.
Attendants—dining room.....	1	26 00	Board and laundry.
Attendants—dining room.....	1	25 00	Board and laundry.
Attendants.....	22	24 00	Board and laundry.
Attendants.....	31	22 00	Board and laundry.
Attendants.....	16	20 00	Board and laundry.
Chief engineer.....	1	90 00	Board and laundry.
Assistant engineers.....	2	45 00	Board and laundry.
Firemen.....	3	36 00	Board and laundry.
Plumber.....	1	50 00	Board and laundry.
Charge of cold storage.....	1	32 00	Board and laundry.
Florist.....	1	40 00	Board and laundry.
Foreman lawns.....	1	27 00	Board and laundry.
Carpenter.....	1	70 00	Boards at home.
Painter.....	1	50 00	Board and laundry.
Dairyman.....	1	50 00	Board and laundry.
Foreman of farm.....	1	40 00	Board and laundry.
Farmhand.....	1	20 00	Board and laundry.
Baker.....	1	50 00	Board and laundry.
Chief cook.....	1	50 00	Board and laundry.
Officers' cook.....	1	16 00	Board and laundry.
Butcher.....	1	20 00	Board and laundry.
Kitchen help.....	5	15 00	Board and laundry.
Housekeeper.....	1	20 00	Board and laundry.
Housegirls.....	3	15 00	Board and laundry.
Foreman of laundry.....	1	50 00	Board and laundry.
Laundress.....	3	15 00	Board and laundry.
Mattressmaker.....	1	30 00	Board and laundry.

ANNUAL REPORT

OF THE

Indiana State Soldiers' Home

FOR 1911

TO THE GOVERNOR

INDIANAPOLIS :

WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING

1912

THE STATE OF INDIANA,
EXECUTIVE DEPARTMENT.

DECEMBER 16, 1911.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,
INDIANAPOLIS, December 22, 1911.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,
Auditor of State.

DECEMBER 22, 1911.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

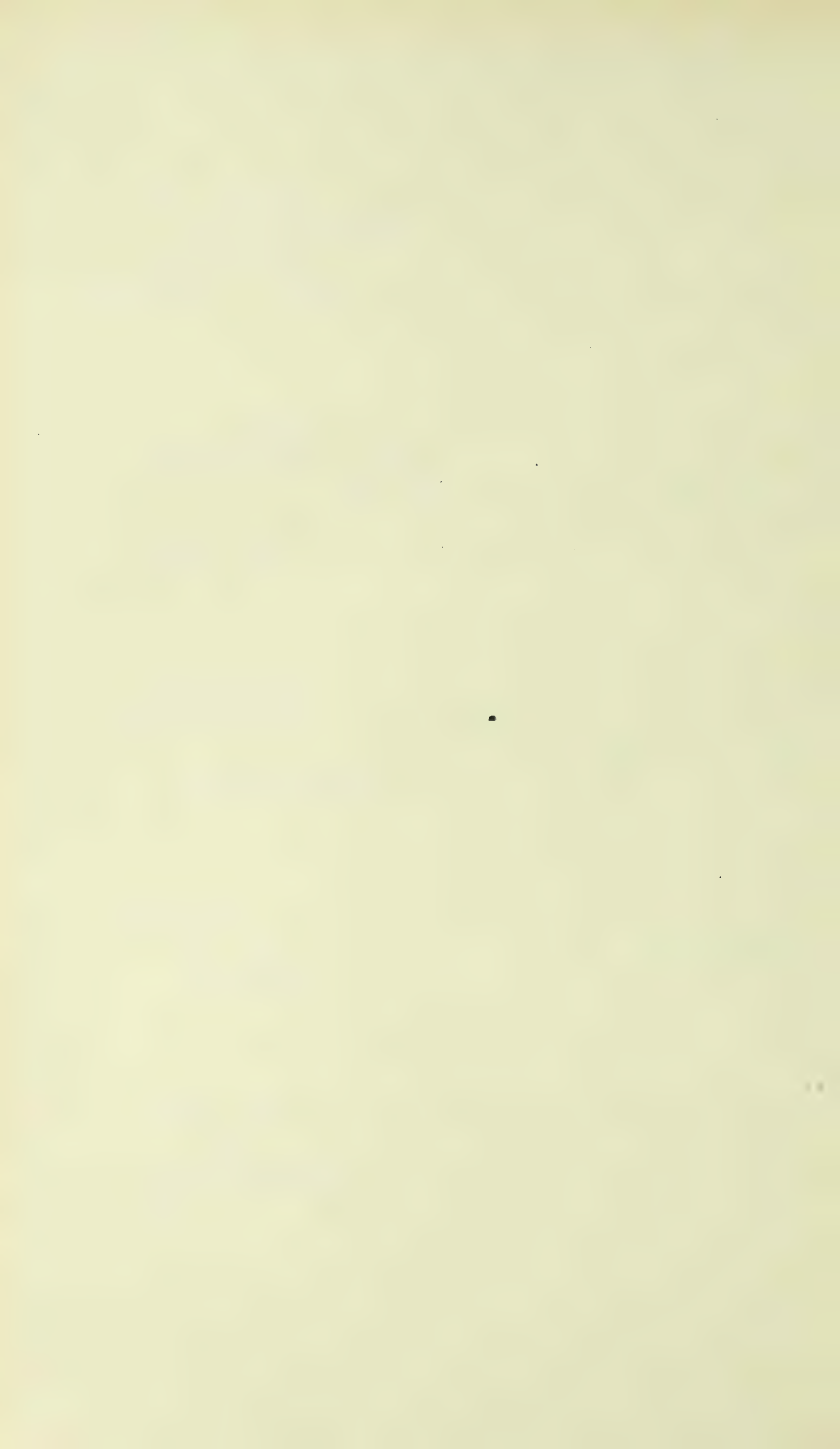
MARK THISTLETHWAITE,
Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, December 22, 1911.

L. G. ELLINGHAM,
Secretary of State.

Received the within report and delivered to the printer, December 26, 1911.

ED D. DONNELL,
Clerk Printing Board.



ANNUAL REPORT

OF THE BOARD OF TRUSTEES INDIANA STATE SOLDIERS'
HOME FOR THE FISCAL YEAR ENDING
SEPTEMBER 30, 1911.

To the Governor

Hon. Thomas R. Marshall, Governor :

The Board of Trustees of the Indiana State Soldiers' Home respectfully submits the report for the fiscal year ending September 30, 1911:

The population of the Home has not materially changed for several years, the average of the total membership being in the neighborhood of 1,400 and the average attendance being about 940, the full capacity of the institution. As no further buildings for quarters are in expectation, it is very probable that the above averages will remain unchanged for years to come.

The loss by death of Col. W. S. Haggard, late Commandant, coming as it did when he was apparently in the full vigor of manhood with an expectancy of many more years of life, was a shock to the community and a loss to the Home. Fortunately in Capt. Daniel B. Kehler, the Adjutant, the institution possessed one qualified to fill any position, through his official experience in the Home, and he was promptly promoted to the position of Commandant.

There is not much probability of counties of the State coming forward to build cottages for the housing of the members, and a still less expectation of the State appropriating for quarters.

The reports of the Commandant, Adjutant and Surgeon-in-Chief, herein, will give a complete history of the institution during the year.

Respectfully submitted,

M. W. COLLETT, President.

A. C. McCORKLE, Vice-President.

LOUIS B. FULWILER, Secretary.

JOHN W. RINEAR, Treasurer.

COMMANDANT'S REPORT.

To the Board of Trustees, Indiana State Soldiers' Home:

Gentlemen—Herewith please find the financial and population reports of the Adjutant and report of the Surgeon of the Home for the year ending September 30, 1911. Also such other statistical information as is required by the statute and rulings.

Respectfully submitted,

D. B. KEHLER,
Commandant.

VALUE OF REAL ESTATE AND PERSONAL PROPERTY OWNED AND CONTROLLED BY THE INDIANA STATE SOLDIERS' HOME, SEPTEMBER 30, 1911.

Real estate, 194.03 acres	\$16,390 00
Improvements	477,274 82
Furniture and fixtures	169,514 97
All other personal property	6,862 92
	<hr/>
	\$670,042 71

ADJUTANT'S REPORT.

Col. D. B. Kehler, Commandant:

Sir—In compliance with the law governing the State Soldiers' Home, I herewith submit a detailed report of receipts, expenditures and movement of members of said Home.

Very respectfully,

D. H. McABEE,
Adjutant.

**RECEIPTS AND EXPENDITURES OF THE INDIANA STATE SOLDIERS, HOME FOR
THE YEAR ENDING SEPTEMBER 30, 1911.**

RECEIPTS.

	Per Capita Mainte- nance.	Salary Comd't and Adj.	Refund Maint.	Sale of Junk.	Excess of Pensions.	
Cash on hand Sept. 30, 1910.....						\$4,406 81
1910.						
October.....	\$15,860 80	\$175 00		\$90 62		
November.....	15,922 56	175 00		50 90		
December.....	16,256 00	175 00		65 37		
1911.						
January.....	16,778 24	175 00		83 03		
February.....	16,819 52	175 00		83 63		
March.....	16,143 84	175 00		76 40		
April.....	16,044 80	175 00		68 79		
May.....	14,837 76	175 00		98 11		
June.....	13,392 96	175 00		96 08	\$46 10	
July.....	13,468 80	143 87	\$108 50	68 21	187 00	
August.....	14,356 96	175 00		66 19	2,236 20	
September.....	14,822 56	175 00		68 65	151 90	
Total.....	\$184,704 80	\$2,068 87	\$108 50	\$915 98	\$2,621 20	\$190,419 35
						\$194,826 16

EXPENDITURES.

	Mainte- nance.	Salary Comd't and Adj.	Maint. Ret. to State.	Earnings to State.	Pensions to State.	
1910.						
September.....	\$13,523 79	\$175 00				
October.....	14,211 69	175 00				
November.....	15,745 82	175 00		\$90 62		
December.....	17,339 27	175 00		50 90		
1911.						
January.....	12,434 97	175 00		65 37		
February.....	13,255 12	175 00		83 03		
March.....	12,005 68	175 00		83 63		
April.....	18,829 37	175 00		76 40		
May.....	14,448 54	175 00	\$10,000 00	68 79		
June.....	12,565 09	175 00		98 11		
July.....	10,574 34	143 87		96 08	\$46 10	
August.....	13,452 31	175 00		68 21	187 00	
			6,000 00	134 84	2,388 10	
Total.....	\$168,385 99	\$2,068 87	\$16,000 00	\$915 98	\$2,621 20	\$189,992 04
Cash on hand Sept. 30, 1911.....						4,834 12
Total.....						\$194,826 16

ADMINISTRATION.

			* Per Capita Cost
Trustees.....		\$1,200 00	\$1 33
Officers.....		8,854 17	9 86
Attendants and other employes.....		31,459 95	35 03
			\$41,514 12

* Based on daily average attendance of 898 members.

SUBSISTENCE.

Fresh meats.....		\$13,994 05		\$15 58
Salted meats and lard.....		9,668 90		10 77
Fish and oysters.....		1,706 43		1 90
Butter, eggs and poultry.....		8,842 46		9 85
Vegetables.....		4,741 83		5 28
Fresh fruit.....		1,318 62		1 47
Dried fruit.....		1,303 11		1 45
Canned goods.....		5,229 56		5 82
Breadstuffs.....		6,576 31		7 33
Vinegar and syrup.....		176 49		20
Tea, coffee and sugar.....		7,959 47		8 86
Milk.....		9,007 09		10 03
Other Food Supplies—				
Salt.....	\$71 16			
Mustard, spice and pepper.....	103 54			
Minced meat.....	30 44			
Candy and nuts.....	154 35			
Catsup.....	15 80			
Extract.....	57 50			
Ice cream.....	37 50	470 29		52
			\$70,994 61	

CLOTHING.

Clothing.....	\$6,718 49			\$7 48
Shoes.....	1,222 85			1 36
			\$7,941 34	

SUNDRIES.

Library and assembly hall.....	\$153 16			\$0 17
Stationery and printing.....	1,237 50			1 38
Furniture and fixtures.....	6,229 12			6 93
Laundry supplies.....	3,052 04			3 40
Medicine, instruments and other supplies.....	3,671 19			4 09
Postage, Telegraph and telephone.....	430 15			48
Freight and transportation.....	1,027 59			1 14
Stable, farm and garden.....	2,175 32			2 42
Light.....	134 58			15
Tobacco.....	148 93			17
Music and amusements.....	42 42			04
Fuel.....	22,489 22			25 04
Engineers' supplies.....	911 63			1 02
Ice.....	120 24			14
Insurance.....	1,578 20			1 76
Funerals.....	296 00			33
			\$43,697 29	

ORDINARY REPAIRS AND MINOR IMPROVEMENTS.

Materials for repairs.....	\$2,707 55			\$3 02
Labor.....	3,599 95			4 01
			\$6,307 50	
Grand total of current expenses.....			\$170,454 86	\$189 81

AVERAGES.

Total expenditures for the year.....		\$170,454 86
Average per capita cost for 898 members.....		189 81—
Average per capita cost for 958 members and employees.....		177 92—
Amount of earnings turned over to State.....	\$915 98	
Amount of pensions turned over to State.....	2,621 20	
Amount paid to State by U. S. Government on account of the Home.....	38,500 00	
		42,037 18
Deducting amount received by State on account of the Home from the amount expended by the State on account of the Home, leaves net cost to the State.....		128,417 68
Net per capita cost to the State for 898 members.....		143 00
Net per capita cost to the State for 958 members and employees.....		134 04

SUMMARY OF STATISTICS FOR THE YEAR ENDING SEPTEMBER 30, 1911.

(Prepared in conformity to resolution adopted by the National Conference of Charities
and Corrections, Philadelphia, May, 1906.)

MOVEMENT OF POPULATION.

	Men.	Women.	Total.
Number of members present Oct. 1, 1910.....	410	561	971
Number of members on furlough Sept. 30, 1910.....	170	289	554
Number of members received during the year.....	99	136	235
Number of members discharged or died.....	133	122	255
Number of members present Sept. 30, 1911.....	384	562	946
Number of members on furlough Sept. 30, 1911.....	162	302	464
Average number of members present during year....	371	527	898
Average number of officers and employes present....	64

EXPENDITURES.

Ordinary Expense—	Per Capita.	Total.
Salary and wages	\$46 22	\$41,514 12
Subsistence	79 06	70,994 61
Clothing	8 84	7,941 34
Office, domestic and outdoor expense.....	48 66	43,697 29
Ordinary repairs	7 03	6,307 50
 Total	 \$189 81	 \$170,454 86
Extraordinary expense, none.		
Permanent improvements, none.		
Grand total of expenses		\$170,454 86
Receipts from junk, etc.	\$915 98	
Excess of pensions	2,621 20	
Paid State by Government	38,500 00	
	<hr/>	42,037 18
		<hr/> \$128,417 68

OFFICERS AND EMPLOYEES, SEPTEMBER 30, 1911.

POSITION.	Number Employed.	Salary per Month.	How Maintained.
Commandant.....	1	\$100 00	Maintained by Home.
Adjutant.....	1	75 00	Maintained by Home.
Matrons (7).....	1	55 00	Maintained by Home.
	2	15 00	Maintained by Home.
	2	12 00	Maintained by Home.
	2	5 00	Maintained by Home.
Bookkeeper.....	1	47 00	Maintained by Home.
Record clerk.....	1	40 00	Partially maintained.
Stenographer.....	1	35 00	Partially maintained.
Sergeant-Major.....	1	20 00	Maintained by Home.
Ord. Sergeant.....	1	10 00	Maintained by Home.
Bandmaster.....	1	15 00	Maintained by Home.
Telephone exchange.....	2	10 00	Maintained by Home.
Policemen.....	2	10 00	Maintained by Home.
Librarian.....	1	8 00	Maintained by Home.
Barber.....	1	10 00	Not maintained by Home.
Chaplain.....	1	28 00	Not maintained by Home.
Laborers (8).....	1	45 00	Not maintained by Home.
	2	40 00	Not maintained by Home.
	2	10 00	Maintained by Home.
	2	8 00	Maintained by Home.
	1	5 00	Maintained by Home.
Teamsters (5).....	1	35 00	Maintained by Home.
	1	25 00	Maintained by Home.
	2	12 00	Maintained by Home.
	1	15 00	Maintained by Home.
Janitors (6).....	3	12 00	Maintained by Home.
	2	10 00	Maintained by Home.
	1	8 00	Maintained by Home.
Woodcutters (2).....	1	6 00	Maintained by Home.
	1	9 00	Maintained by Home.
Carpenters.....	1	17 00	Maintained by Home.
Orderlies.....	1	20 00	Maintained by Home.
Storekeeper.....	1	15 00	Maintained by Home.
Commissary (5).....	1	75 00	Not maintained by Home.
	1	20 00	Maintained by Home.
	1	15 00	Maintained by Home.
	2	12 00	Maintained by Home.
Stewart.....	1	50 00	Maintained by Home.
Cooks (14).....	1	50 00	Maintained by Home.
	1	30 00	Maintained by Home.
	1	25 00	Maintained by Home.
	2	20 00	Maintained by Home.
	2	15 00	Maintained by Home.
	3	12 00	Maintained by Home.
	4	10 00	Maintained by Home.
Bakers (2).....	1	40 00	Maintained by Home.
	1	20 00	Maintained by Home.
Dishwashers (15).....	3	12 00	Maintained by Home.
	3	10 00	Maintained by Home.
	1	8 00	Maintained by Home.
	8	7 00	Maintained by Home.
Waiters (28).....	2	15 00	Maintained by Home.
	23	10 00	Maintained by Home.
	3	7 00	Maintained by Home.
D. R. Sergeants (3).....	1	10 00	Maintained by Home.
	2	8 00	Maintained by Home.
Potato peelers.....	1	4 00	Maintained by Home.
Engineers (3).....	1	75 00	Maintained by Home.
	1	45 00	Maintained by Home.
	1	40 00	Maintained by Home.
Firemen (5).....	1	55 00	Not maintained by Home.
	4	50 00	Not maintained by Home.
Cold storage (3).....	1	18 00	Maintained by Home.
	2	15 00	Maintained by Home.
Plumbers (2).....	1	50 00	Not maintained by Home.
	1	45 00	Maintained by Home.
Laundry (31).....	1	65 00	Maintained by Home.
	1	30 00	Maintained by Home.
	27	13 00	Maintained by Home.
	2	10 00	Maintained by Home.
Surgeons (3).....	1	75 00	Maintained by Home.
	1	70 00	Maintained by Home.
	1	60 00	Maintained by Home.

OFFICERS AND EMPLOYES—Continued.

POSITION.	Number Employed.	Salary per Month.	How Maintained.
Supt. nurses.....	1	60 00	Maintained by Home.
Nurses (14).....	3	15 00	Maintained by Home.
	6	10 00	Maintained by Home.
	5	5 00	Maintained by Home.
Attendants.....	7	15 00	Maintained by Home.
Bedmakers.....	2	9 00	Maintained by Home.
Scrubbers (7).....	1	45 00	Not Maintained by Home.
	5	15 00	Maintained by Home.
	1	10 00	Maintained by Home.
Domestics.....	1	8 00	Maintained by Home.
Linen room.....	1	10 00	Maintained by Home.

MOVEMENT OF POPULATION

SINCE THE OPENING OF THE INSTITUTION IN 1896.

MEN.

YEAR.	Gain.	Dis. O. R.	Sum. Dis- charged.	Dis- charged.	Dropped	Died.	Total Loss.	En- rolled Oct. 31.	Present Oct. 31.	Av. Daily Attend.
1896	271	41	20	14	2	5	82	189	183	116
1897	271	76	19	26	13	15	149	311	247	230
1898	270	168	12	7	46	22	255	326	285	283
1899	291	114	23	17	43	26	223	394	346	313
1900	181	110	11	11	37	26	195	380	320	329
1901	195	79	13	14	26	34	166	409	347	305
1902	183	84	3	23	32	26	168	424	330	330
1903	191	81	7	10	36	28	162	453	373	326
1904	149	54	1	27	26	42	150	452	368	344
1905	181	41	1	13	28	43	126	507	390	347
1906	151	43	1	14	28	36	122	536	388	359
								En- rolled Sept. 30.	Present Sept. 30.	
1907	127	41		5	37	36	119	544	370	353
1908	154	35	1	20	39	48	143	555	385	354
1909	140	29		8	30	48	115	580	420	391
1910	92	25		4	24	39	92	580	413	401
1911	90	36	3	15	34	45	133	540	546	371

WOMEN.

1896	98	11	1		1		13	85	83	48
1897	121	40			1	9	50	156	145	108
1898	105	56		1	8	5	70	191	160	146
1899	121	40		2	22	6	70	242	215	166
1900	105	51		7	16	13	87	260	206	196
1901	112	36		2	31	18	87	285	230	187
1902	122	31		1	23	17	72	335	249	220
1903	139	44	1	7	48	16	116	358	270	238
1904	123	31		3	33	25	92	395	299	261
1905	188	31		2	29	35	97	486	349	291
1906	205	22		3	41	25	91	600	415	347
								En- rolled Sept. 30.	Present Sept. 30.	
1907	148	28		2	45	35	110	638	416	396
1908	182	39	1	7	55	34	136	684	443	418
1909	196	21		1	49	39	110	770	524	474
1910	165	17			31	37	85	850	563	926
1911	136	27		1	54	40	122	864	562	527

TOTAL MEMBERSHIP.

	Enrollment Close of Each Year.	Av. Daily Attendance Each Year.
1896	274	164
1897	467	338
1898	517	429
1899	636	479
1900	640	525
1901	694	492
1902	750	550
1903	811	564
1904	847	605
1905	993	638
1906	1,136	706
1907	1,182	749
1908	1,239	772
1909	1,350	866
1910	1,430	926
1911	1,410	898

MEMBERSHIP BY COUNTIES.

COUNTIES.	Movement of Population Oct. 1, 1910, to Sept. 30, 1911.						Present at Close of Year.		Absent at Close of Year.		Total Enrollment.	
	Admitted.		Discharged.		Died.		Male.	Female.	Male.	Female.	Male.	Female.
	Male.	Female.	Male.	Female.	Male.	Female.						
Allen.....	4	3	3	3		1	5	9	2	3	7	12
Bartholomew.....		2	1					1		1	2	2
Benton.....		1	1				3	7	2	2	5	9
Blackford.....	2	2	2	2			1	5	1	1	2	6
Boone.....			1			2	2	2	1	1	3	3
Carroll.....	2	1	2	2	1		3	7	3	5	6	12
Cass.....	1	3	1		1	1	5	12	4	8	9	20
Clark.....							1	2	1	1	2	3
Clay.....				1			2	4	1	3	3	7
Clinton.....	1	5					5	11	4	7	9	18
Daviess.....							2				2	
Dearborn.....								1				1
Decatur.....		1						1		1		2
Dubois.....			1	1								
Dekalb.....							1	1		1	1	2
Delaware.....		1	1	2			6	7	2	3	8	10
Elkhart.....						1	1	6	3	3	4	9
Fayette.....		1		1			2			2	2	2
Franklin.....									1		1	
Floyd.....	1	3	2	1	1		5	6	1	2	6	8
Fountain.....		1	1	2			5	5	3	6	8	11
Fulton.....	3	4	2	1			4	7	1	2	5	9
Gibson.....	1	2	1			1	2	4	2	3	4	7
Grant.....	9	12	13	9	4	3	39	53	19	41	58	94
Greene.....				1		1	1	2			1	2
Hamilton.....	2	3		1			3	7	2	2	5	9
Hancock.....							1	2	1		2	2
Hendricks.....							1	4	2	2	3	6
Henry.....		1				1	1	1		1	1	2
Howard.....		2	2	3			7	8	3	5	10	13
Huntington.....	2	3	2		1		3	3	3	4	6	7
Jackson.....	1	1				1			2	1	2	1
Jasper.....	1	1					5	4		4	5	8
Jay.....		1					3	4	3	3	6	7
Jefferson.....					1		4	1		1	4	2
Johnson.....	1	1					2	1	1	1	3	2
Knox.....	2	1	1				4	1	1		5	1
Kosciusko.....	1		4	2			5	6	5	12	10	18
Lake.....	3	3	2	1	1	1	5	6	1	3	6	9
Laporte.....	1	2	1	1			3	5			3	5
Lawrence.....	1	2	3	2			1	4		2	1	6
Madison.....	7	8	4	4	3	3	17	28	4	15	21	43
Marion.....	11	13	10	9	9	10	66	91	19	41	85	132
Morgan.....						1						
Miami.....	1	3	1	3	1		6	8	1	3	7	11
Marshall.....			1	2	2		2	5	4	4	6	9
Monroe.....	1	1			1		3	7	1		4	7
Montgomery.....			1			1	6	10	3	3	9	13
Martin.....		1				1				1		1
Newton.....	1	1					2	3		1	2	4
Noble.....	2	1					2	2	2	1	4	3
Orange.....							2				2	
Ohio.....						1						
Owen.....	1	2		1	1		4	7		1	4	8
Parke.....	2	1	1	2	1		5	7	2	7	14	1
Perry.....	1	1					1	1			1	1

MEMBERSHIP BY COUNTIES—Continued.

COUNTIES.	Movement of Population Oct. 1, 1910, to Sept. 30, 1911.						Present at Close of Year.		Absent at Close of Year.		Total Enrollment.	
	Admitted.		Discharged.		Died.		Male.	Female.	Male.	Female.	Male.	Female.
	Male.	Female.	Male.	Female.	Male.	Female.						
Pike.....	2	2	2	1				1		1		2
Porter.....					1		2	2		1	2	3
Posey.....							1	1	1		2	1
Pulaski.....		1						1		1		2
Putnam.....	2	2	1				2	3	1	1	3	4
Randolph.....			2	2				1		1		2
Rush.....	1	1					1	3		1	1	4
St. Joseph.....	1	3	5	3			10	9		3	10	12
Shelby.....	1				2	1	3	3	2	1	5	4
Scott.....										1		1
Spencer.....							4	4		1	4	5
Starke.....	1	2					1	2			1	2
Sullivan.....			1					1	1	2	1	3
Tippecanoe.....		12	6	10	6	5	43	71	26	30	69	101
Tipton.....	2	3	1	2			4	6	1		5	6
Union.....								2	1	1	1	3
Vanderburgh.....		1		1	2		5	8	2	6	7	14
Vermillion.....		1					5	4	2	5	7	9
Vigo.....	2	6	3	1			16	24	6	11	22	35
Wabash.....	1	1	1	1	1		4	10	1	2	5	12
Warren.....				1			5	4		2	5	6
Warrick.....	2	1					4	3		1	4	4
Washington.....	1		1				1				1	
Wayne.....				1	1	2	6	5	2	5	8	10
Wells.....	1	1	1	1			1	3	2	3	3	6
White.....	3	3			4		5	9	3	7	8	16
Whitley.....	2	1			1	1	2	3		1	2	4
Total.....	99	136	88	82	45	40	384	562	162	302	546	864

REPORT OF CHIEF SURGEON.

Col. D. B. Kehler, Commandant:

I submit herewith report of the Medical Department of the Indiana State Soldiers' Home for the year ending September 30, 1911.

Respectfully submitted,

A. E. MORGAN,
Chief Surgeon.

Number sick calls during year	6,191
Number camp calls	4,769
Number dressings	6,242
Number prescriptions	31,475
Number urinalysis	80
Number surgical operations	11
Number men in hospital October 1, 1910	51
Number men admitted during the year	92
Number men returned from furlough	47
Number men discharged	54
Number men furloughed	61
Number men died in hospital	26
Number men in hospital September 30, 1911	49
Total number men died in hospital and camp	33
Average number men in hospital	50
Number women in hospital October 1, 1910	101
Number women admitted during year	179
Number women returned from furlough	63
Number women discharged	120
Number women furloughed	102
Number women died in hospital	29
Number women in hospital September 30, 1911	91
Total number women died in hospital and camp	34
Average number women in hospital	95
Average number daily fed	200

LIST OF DEATHS.

MEN.

NAME.	Age.	Date of Death.	Cause.
Abraham Bush.....	73	Oct. 16, 1910	Bronchial asthma.
John H. Colgan.....	75	Nov. 9, 1910	Chronic intestinal catarrh.
John A. Griffith.....	64	Nov. 23, 1910	Cerebral embolism.
Wilhelm Vogel.....	79	Dec. 14, 1910	Arterio sclerosis.
Simeon Sulgrove.....	72	Dec. 20, 1910	Chronic diarrhea.
George Stewart.....	83	Dec. 24, 1910	Myocarditis.
John Duncan.....	69	Jan. 13, 1911	LaGrippe.
George H. Whiston.....	74	Jan. 29, 1911	Cerebral apoplexy.
Jacob A. Hill.....	63	Feb. 3, 1911	Arterio sclerosis.
Charles Brandt.....	79	Mar. 16, 1911	Tuberculosis.
Alva J. Hart.....	69	April 5, 1911	Eodema of lungs.
James W. Thorp.....	68	April 27, 1911	Apoplexy.
John T. Campbell.....	78	April 30, 1911	Organic heart lesion.
John H. Murphy.....	71	May 3, 1911	Tuberculosis.
Logan Daniels.....	80	May 10, 1911	Pneumonia.
John A. Robertson.....	63	May 13, 1911	Mitral insufficiency.
Robert Young.....	69	June 7, 1911	Cerebral hemorrhage.
Thomas Birge.....	69	June 14, 1911	Epistaxis.
Mathias Krauss.....	65	July 4, 1911	Cancer of esophagus.
Myron Stowell.....	73	July 11, 1911	Chronic myocarditis.
Francis Noelle.....	87	July 11, 1911	Chronic diarrhea.
Allen W. Armacost.....	70	July 13, 1911	Cerebral hemorrhage.
Josiah Bryant.....	65	July 19, 1911	Mitral insufficiency.
John Miller.....	70	Aug. 7, 1911	Chronic diarrhea.
Oliver S. Dale.....	77	Aug. 11, 1911	Angina pectoris.
Fred Babcock.....	66	Aug. 18, 1911	Cerebral apoplexy.
Evan M. Prothero.....	83	Aug. 23, 1911	Epilepsy and chronic diarrhea.
Caswell H. Madison.....	82	Aug. 30, 1911	Mitral insufficiency.
Calvin C. Terrell.....	66	Sept. 3, 1911	Cerebral hemorrhage.
Johannes Hohl.....	82	Sept. 5, 1911	Chronic interstitial nephritis.
James Naylor.....	74	Sept. 5, 1911	Cerebral apoplexy.
Eli Outland.....	67	Sept. 29, 1911	Myocarditis rheumatism.
James Mullens, T. A. P.....	80	Nov. 30, 1910	Epilepsy.

WOMEN.

NAME.	Age.	Date of Death.	Cause.
Lena Flack.....	65	Oct. 10, 1911	Chronic opium poisoning.
Mary L. Weesner.....	60	Nov. 2, 1910	Arterio sclerosis.
Mariah Murphy.....	63	Nov. 12, 1910	Meningitis, result of sunstroke.
Margaret Bragg.....	78	Nov. 18, 1910	Cerebral hemorrhage.
Nancy McKeehan.....	76	Nov. 21, 1910	Hemorrhage of bowels and nephritis.
Nancy Tippet.....	85	Nov. 29, 1910	Cancer of liver.
Rebecca Shoemaker.....	67	Nov. 29, 1910	Gastro-enteritis.
Mary J. Staleup.....	71	Dec. 9, 1910	LaGrippe.
Eliza Barcus.....	79	Dec. 10, 1910	Cancer of breast.
Jane Jones.....	83	Dec. 30, 1910	Cerebral apoplexy.
Esther Hardesty.....	69	Jan. 31, 1911	Cancer of uterus.
Evaline Outland.....	67	Feb. 5, 1911	Endocarditis.
Mary E. Hitner.....	58	Feb. 6, 1911	Eodema of lungs.
Agnes P. Keefer.....	64	Feb. 15, 1911	Anemia, result of chronic opium poisoning.
Abbie A. C. Converse.....	64	Mar. 9, 1911	Fibroid tumor.
Nancy J. Copeland.....	74	Mar. 9, 1911	Arterio sclerosis.
Sarah Jane Bennett.....	73	Mar. 20, 1911	Epilepsy.
Mary J. Hart.....	82	April 6, 1911	Septicemia.
Laura Duvall.....	67	April 22, 1911	Apoplexy.
Lucinda L. Loyd.....	90	April 30, 1911	Nephritis.
Mary Ann Sterling.....	79	May 7, 1911	Dilatation of heart.
Mary Ellen Brademeier.....	72	May 16, 1911	Mitral insufficiency.
Matilda Dickerson.....	72	May 29, 1911	Arterio sclerosis.
Eleanor Landis.....	76	June 4, 1911	Senility, shock from fall.
Louise Fleming.....	80	July 4, 1911	Angina pectoris.
Mary A. Beal.....	66	July 4, 1911	Cancer of breast.
Jennie M. Hayes.....	62	July 14, 1911	Cerebral hemorrhage.
Jane Yoeman.....	77	July 29, 1911	Organic heart disease.
Nancy Ann Taulbee.....	69	Aug. 1, 1911	Cerebral tumor.
Ellen Rogers.....	63	Aug. 6, 1911	Obstruction of bowels.
Martha M. Wood.....	69	Aug. 8, 1911	Epilepsy.
Louisa J. Waller.....	79	Aug. 10, 1911	Pulmonary tuberculosis.
Anna E. McCurdy.....	71	Sept. 1, 1911	Broneho pneumonia.
Emma Stineback.....	40	Sept. 20, 1911	Suicide, carbolic acid poisoning.

DIED ON FURLOUGH.

Men—

Joseph Lewis, Company B, 153d Ind. Inf.
 Charles Fountain, Company F, 8th Ind. Inf.
 Robert Lambert, Company I, 59th Ind. Inf.
 William L. Jones, Company A, 154th Ind. Inf.
 Albert Ellis, Company A, 65th Ohio Inf.
 Henry Miller, Company D, 8th Ind. Inf.
 Jacob Wissinger, Company C, 87th Ind. Inf.
 Walter Clark, Company G, 31st Ind. Inf.
 Nicholas A. Swadley, Company G, 100th Ind. Inf.
 Cyrus Shultz, Company K, 57th Ohio Inf.
 Michael J. Reese, Company K, 57th Ohio Inf.
 Spencer P. Watson, Company G, 6th Mo. Cav.
 William Bristow, Company I, 136th Ind. Inf.

Women—

Catherine Hebbler, wife.	Jennie Jeffrey, wife.
Julia E. Baier, widow.	Harriet E. Bayless, widow
India Gifford, wife.	Mary H. Mannon, wife.



CYPRESS (*Taxodium distichum*) on the west shore of Hovey Lake in Posey County. This is near the northern limit of the range of this species.

STATE OF INDIANA

Eleventh Annual Report

OF THE

State Board of Forestry

1911

CHAS. C. DEAM, Secretary

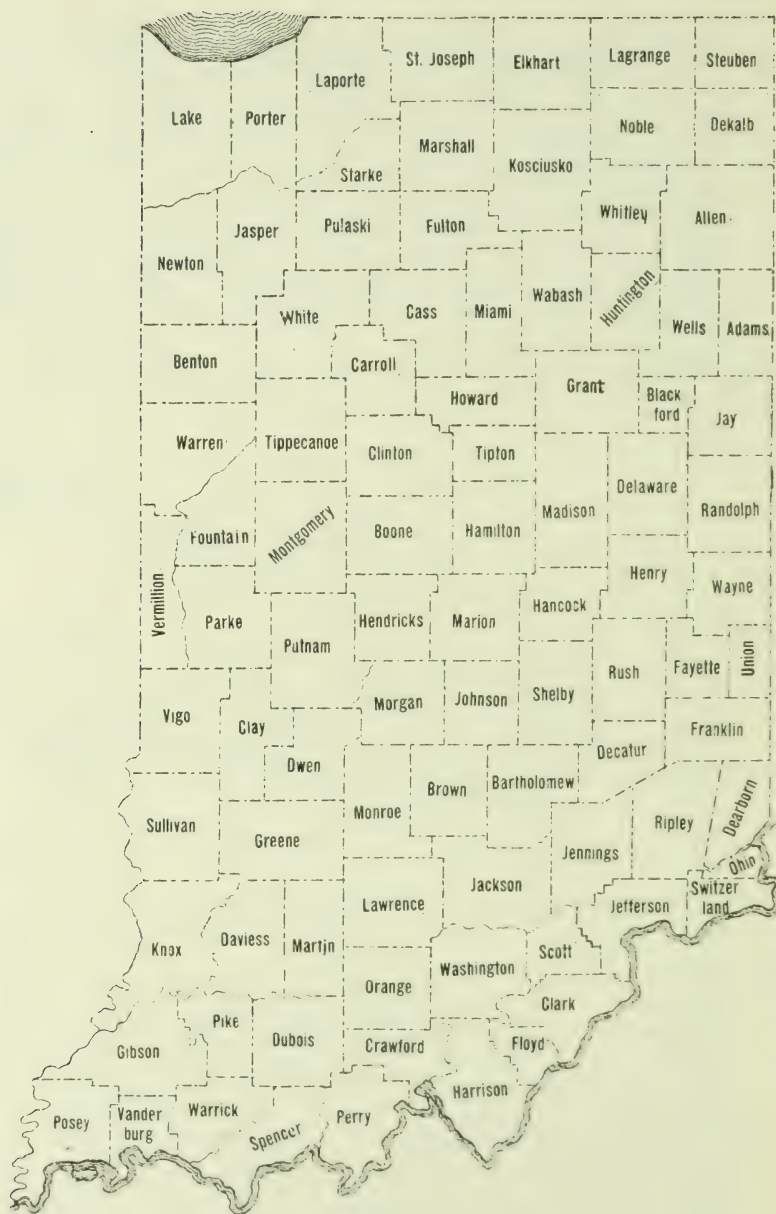
To the Governor

INDIANAPOLIS:

WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING

1912

PLATE 132.



COUNTY MAP OF INDIANA.

THE STATE OF INDIANA,
EXECUTIVE DEPARTMENT,
DECEMBER 1, 1911.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,
INDIANAPOLIS, December 26, 1911.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,
Auditor of State.

DECEMBER 26, 1911.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,
Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, December 26, 1911.

L. G. ELLINGHAM,
Secretary of State.

Received the within report and delivered to the printer December 27, 1911.

ED. D. DONNELL,
Clerk Printing Board.

Letter of Transmittal.

INDIANA STATE BOARD OF FORESTRY,
INDIANAPOLIS, INDIANA,

December 1, 1911.

Hon. Thomas R. Marshall:

Sir—As required by Section 4 of the act establishing a State Board of Forestry, approved March 1, 1901, we submit herewith the Eleventh Annual Report of the Board of Forestry, beginning with October 1, 1910, and ending with September 30, 1911.

Very respectfully,

S. BURKHOLDER, President.

CHAS. C. DEAM, Secretary.

Indiana State Board of Forestry.

OFFICIAL MEMBERS, 1911.

SAMUEL BURKHOLDER, President.....	Crawfordsville.
STANLEY COULTER.....	Lafayette.
ARTHUR S. NOWELS.....	Columbia City.
WILLIAM M. WALTMAN.....	Bean Blossom.
CHAS. C. DEAM, Secretary.....	Bluffton.
EMMA L. STREIBICH.....	Indianapolis.

OFFICE OF SECRETARY.

Room 110, State House, Indianapolis.

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Financial Statement.

OCTOBER 1, 1910, TO OCTOBER 1, 1911.

Annual Appropriation by the General Assembly, 1909.

1. Office—

Salary of secretary of board.....	\$1,800 00
Salary of stenographer to secretary.....	600 00
Salary of four board members.....	400 00
Mileage of four board members.....	58 28
General office expense and mileage	1,000 00

Total	\$3,858 28
-------------	------------

2. Forest Reservation and Experimental Station.....\$3,000 00

Expenditures.

Office—Salary:

Chas. C. Deam, secretary of board.....	\$1,800 00
Nora M. Slattery, stenographer to secretary.....	464 51
Emma L. Streibich, stenographer to secretary.....	125 00
Samuel Burkholder, board member.....	100 00
Samuel Burkholder, board member, mileage.....	12 40
Stanley Coulter, board member.....	100 00
Stanley Coulter, board member, mileage.....	16 36
Arthur S. Nowels, board member.....	100 00
Arthur S. Nowels, board member, mileage.....	14 40
William M. Waltman, board member.....	100 00
William M. Waltman, board member, mileage.....	15 12

Total	\$2,847 79
-------------	------------

Office—General Expense:

Office supplies	\$491 27
Postage	120 98
Mileage	145 45
Hotel	55 45
Livery	66 50
Telephone	43 30
Photographic supplies	54 04
Surveying	8 00
Express	11 40

Total	\$996 39
-------------	----------

Reservation Expenses:

Labor	\$2,386 88
Household supplies, hardware and tools.....	71 68
Hay and corn	76 47
Seedlings and seed	106 60
Construction material	179 38
Sawmill work, filing tools, etc.....	21 66
Board for board members.....	11 75
Freight	43 74
Telephone and repairing	16 60
Carbide	15 00
Blacksmithing	22 65
Paints, oils and brushes	38 65
Livery	7 50
Express	70

Total	\$2,999 26
-------------	------------

Receipts from sales at Forest Reservation and Experimental Station and remitted to State Treasurer upon recommendation of State Auditor

\$71 30

Introduction.

That the source of our timber supply within a few generations will be an acute and vital question is not a prophecy, but the statement of a fact, easily deduced from the ever-increasing price of lumber and the fast-vanishing forests. That the use of such substitutes as fibre, steel, stone and cement will not solve the problem is also a fact that is not disputed. No apology is needed for insisting that a question of such great economic importance should engage the attention of both Federal and State governments. There is hope in the vigorous efforts put forth by many of the States and by the United States Forest Service to conserve our forests, but their efforts should be made more vigorous and far-reaching.

It is much to the credit of Indiana that the question of our future timber supply received official recognition about ten years ago. At that time our legislators decided that the solution of the problem was to be found in educating the people in timber culture and in the management of their woodlots, three million acres of which existed at that time.

Accordingly, a State Board of Forestry was created and a forest experimental station of 2,000 acres was purchased on which to demonstrate timber culture. Since that time much has been accomplished in changing public sentiment from a destructive to a constructive management of our forests. The question has been presented to the public through the press, public schools, farmers' institutes, civic federations, women's clubs, etc., until now almost everyone knows something about the forestry movement, and many woodlot owners are practicing scientific forestry. The work at the forest experimental station has been developed until it is, today, the best demonstration of the growing of hardwoods in the United States.

The policy of the present board of forestry is a continuance of that of its predecessors. The work of the past year has been to develop the experiments in progress at the forest experimental station and to forcibly present the forestry problem to land-owners, and to the teachers and pupils of the public schools of the State. The people should know how important it is to have

an adequate supply of timber and also that there are thousands of acres of eroded hillsides and wornout fields in Indiana which should be planted to forest trees. On investigation, however, it will be found in a majority of the cases that the owners of such lands are too poor to bear the expense of reforestation, so that this important work is neglected and conditions annually become worse.

It is becoming more and more evident to students of this problem that the burden of reforestation and protecting such lands should be transferred from the individual to the State, because individuals will not invest in an enterprise in which they are compelled to wait so long for returns as the growing of timber entails. In view of the preceding situation it is recommended that the State acquire by purchase as funds permit such lands of the State as will not permanently support agriculture and devote them to scientific forestry.

Such a recommendation is not without precedent, since many States are acquiring large holdings under various legislative enactments. Notable are the following: The Wisconsin forest reserves comprise approximately 427,000 acres, of which over 100,000 acres were purchased at an average price of \$3 per acre. The State of Pennsylvania has purchased 962,580 acres at an average price of \$2.24 per acre, and has under contract the purchase of about 40,000 acres more, making in all over a million acres. The Adirondack and Catskill reserves of New York comprise 1,641,523 acres, 850,829 acres of which were condemned and purchased at an average price of \$4.42.

It is very evident that if, in our own State, any substantial advance is made there must be a recognition of valuable trees on the part of the woodlot owner. In order that this may be possible a list of trees of the State has been prepared. By the aid of this list and the accompanying keys the landowner will be able to determine the composition of his woodlot, to decide what species he desires to increase in number and what species he desires to reduce, and to estimate with some fair accuracy the value of his stand. It is believed that the application of the knowledge contained therein will result in a vastly improved and more profitable management of the existing woodlots.

STATE BOARD OF FORESTRY.

Reservation.

On another page in this report will be found a study of the rate of tree growth in respect to diameter and volume. This shows that for a given time that the different species of trees, as well as the individuals of the same species, vary considerably in diameter and volume. Why this variation? The answer to this question is valuable to the man who expects to plant forest trees and to the woodlot owner. They are interested in knowing which species of trees grow the fastest and will produce the greatest amount of merchantable wood products in a definite period.

However, as yet we have only an imperfect knowledge of how to make our forest trees produce the most in the shortest space of time. Additional information is desirable, which must be obtained by experiments which will extend over long periods of time. The habits of each species of trees are fixed by heredity, and man, in cultivating them, is obliged to meet the requirements of each species or change their habits by breeding.

Many experiments are now in progress at the forest experiment station, in which the habits of many species are being studied and an effort is being made to discover the laws of tree growth. The different species are studied as units, and the several species are contrasted and compared.

The experiments now in progress are for the most part to determine the relation of the more important species to soil and moisture conditions; the effect of pure and mixed stands; the effect of spacing on the rapidity of growth and quality of product; the kind and amount of pruning that should be done; the effect and value of cultivation. The results of the above experiments must be deferred for future reports, since they have not been in progress a sufficient time to warrant conclusions.

Several auxiliary experiments have been undertaken which will take several years to complete. Since a preliminary report was made last year on the experiment to determine what time of the year the several species of trees make their growth, the data obtained this year on this experiment are here given.

EXPERIMENT TO DETERMINE THE PERIODICITY OF GROWTH.

The experiment of determining the periodicity of the growth of some of our most valuable species of trees, which was begun last year, was extended this year to include ten trees each of ten species. The measurement of the growth of the terminal of the tree was taken to the nearest tenth of an inch and the measurements were taken at intervals of fifteen days throughout the growing season. In considering this year's results it should be borne in mind that a severe drought set in the first of May and continued until the middle of August.

The species measured, age and number of trees used in the experiment are as follows:

- Trees number 1 to 10, yellow poplar, five years old.
- Trees number 11 to 20, black locust, five years old.
- Trees number 21 to 25, black walnut, seven years old.
- Trees number 26 to 30, black walnut, four years old.
- Trees number 31 to 35, catalpa, five years old.
- Trees number 36 to 40, catalpa, three years old.
- Trees number 41 to 50, chestnut oak, seven years old.
- Trees number 51 to 60, chestnut, seven years old.
- Trees number 61 to 70, pecan, seven years old.
- Trees number 71 to 80, coffeenut, five years old.
- Trees number 81 to 85, ash, seven years old.
- Trees number 86 to 90, ash, four years old.
- Trees number 91 to 100, elm, four years old.

The measurements and the date taken are as follows:

Tree Number.	May 16th.	May 31st.	June 15th.	June 30th.	July 15th.	July 30th.	August 14th.	August 29th.
1.....	4.4	13.5	17.6	20.3	21.9	22.2	22.2	22.4
2.....	1.7	13.8	16.2	18.6	22.4	23.6	23.6	24.5
3.....	.3	4.5	9.3	12.6	17.5	20.2	20.5	20.9
4.....	1.	15.8	23.1	30.2	36.9	40.8	40.8	41.
5.....	3.9	16.	21.5	25.8	31.8	33.7	35.6	35.6
6.....	.4	5.5	8.1	10.7	11.5	11.7	11.7	11.9
7.....	2.9	13.9	20.1	23.4	25.8	26.2	27.	27.
8.....	2.	11.2	16.7	21.2	25.1	26.8	27.	27.3
9.....	2.7	13.7	19.6	24.3	30.5	33.9	36.9	37.1
10.....	2.5	12.	19.1	22.6	25.4	26.3	26.8	26.8
11.....	2.4	7.8	12.5	15.8	26.4	27.3	27.3
12.....	4.2	14.4	25.5	32.7	42.5	44.4	44.4
13.....	3.5	12.	16.8	21.9	26.1	26.4	26.5
14.....	3.	13.5	20.7	21.6	23.	Br'k'n off
15.....	3.1	12.2	17.	18.2	18.3	19.1	19.2
16.....	2.2	13.5	25.4	34.9	44.8	45.2	45.5
17.....	2.5	12.4	18.4	22.9	24.2	24.1	24.1
18.....	1.5	12.6	23.	36.3	50.5	55.2	55.3
19.....	2.2	13.2	18.6	22.6	26.7	26.7	26.7
20.....	1.2	12.5	16.5	17.3	17.3	17.3	17.8
21.....	.4	11.4	16.7	18.8	19.6	19.6	19.6	19.8
22.....	.2	6.1	7.6	7.6	7.6	7.6	7.6	7.7
23.....	0.	8.1	12.1	12.8	13.2	13.2	13.3	13.3
24.....	.4	11.9	17.5	19.4	20.6	20.6	20.6	20.6

Tree Number.	May 16th.	May 31st.	June 15th.	June 30th.	July 15th.	July 30th.	August 14th.	August 29th.
25	.5	8.9	10.9	11.4	11.1	11.	11.	11.
26	1.7	12.	20.2	27.3	27.8	28.1	28.1	28.1
27	2.5	21.3	24.5	27.2	36.6	37.8	37.9	37.6
28	3.1	17.7	21.6	23.	26.5	26.8	26.9	26.6
29	2.1	2.5	7.9	11.5	12.2	12.2	12.2	12.3
30	2.	13.7	19.5	24.5	32.1	33.	33.	33.
31	6.9	20.5	24.1	27.9	28.7	28.8	28.8	
32	4.3	21.5	22.8	23.	22.7	22.7	23.	
33	4.3	15.8	16.3	17.7	20.3	20.1	20.4	
34	4.8	19.3	21.6	23.9	24.5	24.4	24.4	
35	4.5	13.4	14.9	15.6	16.3	16.6	16.4	
36	4.4	16.5	17.6	19.6	32.6	34.9	35.	
37	6.1	20.2	24.4	29.4	37.5	38.9	39.	
38	3.9	14.8	18.4	24.7	33.7	33.4	32.7	
39	6.2	22.4	24.6	30.5	37.5	38.2	38.2	
40	10.7	19.4	19.6	20.	22.8	22.8	22.9	
41	7.5	7.8	7.8	7.9	8.4	11.1	11.1	11.2
42	5.1	5.2	5.7	5.7	5.2	5.3	5.4	5.4
43	3.4	3.4	3.4	3.9	8.3	8.5	8.5	8.5
44	7.1	7.3	7.3	7.4	9.4	9.7	9.8	9.8
45	13.7	15.	15.9	27.6	33.7	33.7	34.	34.
46	6.1	6.3	7.	12.5	22.9	22.9	23.	23.
47	5.8	5.9	8.	19.7	21.8	22.	22.	22.2
48	12.3	12.3	12.3	12.3	19.6	21.9	21.8	22.
49	5.1	6.2	6.6	13.	13.7	13.5	13.5	13.5
50	1.4	1.5	3.5	7.7	7.7	7.7	7.8	7.8
51	5.8	11.5	15.6	17.8	18.3	18.3	18.6	18.6
52	2.6	7.	8.6	10.2	11.3	11.5	11.6	11.6
53	2.9	7.1	8.9	9.8	9.8	9.9	9.9	9.9
54	1.2	4.2	4.4	4.8	14.2	14.3	14.5	14.5
55	2.3	4.7	5.9	9.3	10.8	14.8	14.9	15.
56	2.3	3.4	5.9	8.5	9.7	9.7	9.8	10.
57	1.4	2.5	Br'k'n off					
58	.9	Br'k'n off						
59	6.	15.2	19.7	23.5	27.7	27.7	27.7	27.8
60	4.4	12.2	15.	17.7	19.	19.	19.	19.
61	6.	11.7	14.3	16.9	17.4	17.4	17.4	17.4
62	10.5	19.4	21.	20.8	21.	21.4	21.4	21.2
63	4.1	15.	16.7	18.5	19.8	20.	20.	19.7
64	.7	11.8	14.4	16.1	16.4	15.9	16.2	16.3
65	.8	9.	10.	10.8	10.8	10.9	11.	10.8
66	3.9	10.5	13.5	14.	14.5	14.7	15.	15.
67	.7	9.7	12.3	15.9	15.9	15.9	15.9	15.9
68	6.2	14.8	16.3	16.3	16.8	16.9	16.9	16.9
69	.3	4.1	8.1	11.	12.2	12.4	16.1	16.8
70	0.	1.7	2.2	3.4	6.1	6.5	6.7	6.7
71	12.3	21.5	21.5	21.6	21.8	22.	22.2	
72	11.1	16.3	16.3	16.3	16.3	16.3	16.4	
73	16.	25.2	25.4	25.5	25.7	25.9	26.	
74	11.9	13.5	14.3	14.3	14.4	14.4	14.4	
75	9.4	15.5	16.4	16.5	17.7	19.1	19.8	
76	13.9	23.	23.	23.	23.	23.	23.	
77	11.2	15.8	15.8	15.8	15.8	15.8	15.8	
78	6.7	17.4	18.	18.	18.	18.	18.5	
79	11.	19.5	19.6	19.6	20.	20.	20.	
80	11.6	28.	28.	28.	28.	28.4	28.5	
81	17.	22.7	22.7	22.9	22.9	23.	23.1	
82	13.2	22.5	23.	23.	23.	23.1	23.3	
83	16.4	21.3	21.3	21.3	21.3	21.3	21.3	
84	17.3	25.7	25.8	25.9	25.7	25.6	25.6	
85	14.8	31.1	31.3	31.4	31.4	31.3	31.3	
86	17.5	23.	23.	22.8	22.8	22.6	23.6	
87	15.7	29.	29.	28.9	28.8	28.9	29.	
88	4.7	18.4	21.3	21.4	21.5	21.4	21.4	
89	13.9	21.3	21.3	21.3	21.3	21.3	21.5	
90	15.1	21.2	22.4	22.7	25.3	25.8	25.8	
91	1.6	3.	3.	3.1	3.3	3.3	3.3	3.3
92	0.	13.4	25.3	35.3	45.	51.3	52.4	53.1
93	15.1	22.5	22.5	23.4	32.	33.4	34.9	34.9
94	7.8	13.2	14.5	16.5	25.1	25.4	25.6	26.4
95	9.7	23.3	31.3	31.5	46.7	55.7	56.3	56.3
96	11.5	24.2	32.9	42.1	53.4	61.4	62.5	62.5
97	10.7	18.1	18.9	19.4	19.6	28.6	28.7	Br'k'n off
98	11.4	19.5	21.8	22.1	32.2	37.	37.7	
99	7.	9.5	10.2	17.5	27.5	28.5	29.	29.
100	9.8	23.1	28.1	30.2	39.1	49.5	49.5	50.2

The average growth of the species for the fifteen-day intervals is as follows:

	May 16th.	May 31st.	June 15th.	June 30th.	July 15th.	July 30th.	August 14th.	August 29th.
Poplar.....	2.18	11.99	17.13	20.97	24.88	26.54	27.21	27.45
Locust.....	2.58	12.41	19.44	24.42	29.98	31.74	31.86	
Walnut.....	1.29	11.36	15.85	18.35	20.73	20.98	21.02	21.
Catalpa.....	5.61	18.33	20.43	23.23	27.66	28.08	28.08	
Chestnut Oak.....	6.75	7.09	7.75	11.77	15.07	15.63	15.65	15.74
Chestnut.....	2.98	7.64	10.50	12.70	15.10	15.65	15.75	15.80
Pecan.....	3.32	10.77	12.88	14.37	15.09	15.20	15.66	15.67
Coffeenut.....	11.51	19.57	19.83	19.86	20.07	20.29	20.46	
Ash.....	14.76	23.62	24.11	24.16	24.40	24.43	24.59	
Elm.....	8.46	16.98	20.85	24.11	34.39	37.41	37.99	39.32

The average growth of the species at the end of the monthly intervals is as follows:

	May 31st.	June 30th.	July 30th.	August 29th.
Poplar.....	11.99	20.97	26.54	27.45
Locust.....	12.41	24.42	31.74	31.86
Walnut.....	11.36	18.35	20.98	21.
Catalpa.....	18.33	23.23	28.08	28.08
Chestnut Oak.....	7.09	11.77	15.63	15.74
Chestnut.....	7.64	12.70	15.65	15.80
Pecan.....	10.77	14.37	15.20	15.67
Coffeenut.....	19.57	19.86	20.29	20.46
Ash.....	23.62	24.16	24.43	24.43
Elm.....	16.98	24.11	37.41	39.32

The growth of the species at the end of June, expressed in the percentage of the year's growth, is as follows:

	Per Cent.		Per Cent.
Poplar	76	Chestnut	80
Locust	77	Pecan	92
Walnut	87	Coffeenut	97
Catalpa	83	Ash	99
Chestnut Oak	75	Elm	61

Another experiment, on which a preliminary report may be made, is one "to determine whether the lobing of the catalpa leaf has a specific significance, and to what extent the lobing is influenced by cultivation, pruning and the age of the tree." This experiment was undertaken to refute or corroborate the idea held by some persons that the true catalpa speciosa never has lobed leaves. In this experiment the leaves on 130 trees were counted

in 1910 and 1911. The total number of leaves, the number with one lobe and the number with two lobes were counted. The trees used were selected from four tracts of catalpa of different ages. Ten consecutive trees, selected from an average row, constitute a group, which is the unit used in this experiment. One or more units were selected from each tract. Some of the units were from parts of the tracts that had been cultivated and pruned, and other units from parts that had not been cultivated or pruned.

A detail of the counts of the several groups is not given, and only the totals of the several groups are given at this time. In 1910 ten of the 130 trees contained lobed leaves. In 1911 twenty-nine of the 130 trees contained lobed leaves. Five trees only had lobed leaves both years. It will be noted that twenty-nine of the 130 trees had lobed leaves one year and entire leaves the next.

CULTIVATION AND PRUNING OF THE EXPERIMENTAL TRACTS.

The younger plantations were cultivated with a two-horse cultivator and the older ones with a one-horse cultivator. Some of the older tracts were given cultivations and hoeings that were not necessary for the forest growth, but in order to make the tracts accessible to visitors it was necessary to keep down briars and weeds.

The value of pruning is demonstrated in each tract. A part of each tract is permitted to grow without pruning and the remainder receives some kind of pruning. The purpose of pruning is to obtain a straight tree and to prevent it forming a permanent fork. In the main the coppice method appears to be the most economical and satisfactory method of accomplishing the above results, especially with walnut and catalpa.

Last spring the greater part of Tract No. 5 was coppiced. This tract was planted to walnut in 1905, and since the species is not well adapted to the soil the trees have not made a rapid growth and a majority of them had a bushy top and only a few an upright leader. Seven thousand six hundred and forty-two were coppiced and only 52 failed to sprout from the stump.

Extensive experiments have been started in the coppicing of catalpa. The purpose of these experiments is to obtain information on the following points: To learn if the catalpa should be coppiced when 1, 2 or 3 years old. To determine if coppicing at one time of the year produces more favorable results than at an-

other, and if all the coppice shoots should be permitted to grow one year and then remove all but one, or should all but one be removed when they are about fifteen inches high. To study the effect of high and low stump and the value of treating the stumps with an antiseptic.

The amount and cost of cultivation and pruning for the year 1911 are as follows:

Number of Tract.	Number of Acres.	Number of Times Hoed and Cultivated.	Cost of Hoeing and Cultivating.		Cost of Pruning.		Total Expense.
			Total.	One Acre Once.	Total.	Per Acre.	
1-A	.65	1	\$0 87	\$1 34	\$0 35	\$0 53	\$1 22
1-B	1.24	1	1 40	1 13	70	56	2 10
2	2.38	1	5 55	2 33	1 58	66	7 13
3	2.98	1	1 75	58	4 37	1 43	6 12
4	1.96	1	37	18	3 15	1 60	3 52
5	6.69	1	6 40	95	6 48	96	12 88
16	5.64	1	7 93	1 35	2 10	37	10 03
20	.18	2	60	1 66	09	50	69
21	2.71	1	5 65	2 08	1 75	64	7 40
22	.27				35	1 29	35
23	.51	3	1 76	1 15	18	35	1 94
24	2.89	3	13 21	1 52	1 40	48	14 61
25	8.83	5	22 95	51			22 95
26	1.71				1 05	61	1 05
27	.62				53	85	53
28	9.92	4	34 54	84			34 54
29	.10	1	14	1 40	09	90	23
30	.07	1	14	2 00	05	71	19
31	.60	3	2 85	1 58	09	15	2 94
32	.52				70	1 34	70
33	6.40	4	25 75	1 00	3 84	60	29 59
34	3.79	4	27 46	1 80			27 46
36	4.11	1	10 30	2 50	1 93	47	12 23
37	6.22	4	48 40	1 94	1 58	25	49 98
38	2.14	4	21 09	2 46	56	26	21 65
39	4.18	4	33 22	1 98	88	21	34 10
40	2.53	4	25 47	2 51	1 40	55	26 87
41	5.04	2	30 00	2 62	1 93	38	31 13
42	1.02	3	7 30	2 38	1 40	1 37	8 70
43	5.78	4	22 04	95			22 04
44	3.90	4	13 12	84	35	09	13 47
Total..	95.49		\$370 27	\$1 54	\$38 88	\$0 67	\$409 15

Average cost of hoeing and cultivating one acre once.....\$1 54

Average cost of pruning per acre.....67

Field Planting.

All of the field planting contemplated was completed, but under adverse conditions. The work was delayed on account of heavy rains until late in the season, and was at last done when it was too wet for the best results. Immediately after planting it turned dry and there was practically no rain for over three months.

Over one-half of the tulip trees planted appeared at first as if they would perish, but after the August rains they began to leaf out near the base. The black locust also had a hard struggle, but did well after the rain. Practically all of the ash, elm and sycamore seedlings that were planted this spring survived, but the growth was retarded by the long drought which occurred during the growing season.

The following planting was done: The two ravines which were cleaned and plowed last fall were planted with seedlings of elm and sycamore in alternate rows $3\frac{1}{2}$ feet apart and $3\frac{1}{2}$ feet apart in the rows. They received no cultivation, and before fall they were overtopped by the weeds, but not before the trees had made most of their growth. The soil being moist in the ravines the trees all lived and the growth was excellent.

The vacancies in tract 28 caused by the death of the walnut and hickory were filled with seedlings of the same species.

The 2-year-old ash in tract 34 were reinforced with 920 1-year-old ash seedlings.

TRACT 25.

The general surface is a flat ridge with an eastern aspect, gradually sloping on the north to a ravine and somewhat abruptly sloping on the south to a ravine. Average elevation, about 530 feet. Area, 8.83 acres. The soil is a light clay loam. The general shape is that of a square, the south boundary being irregular, since it follows the ravine.

This tract is an experiment in growing tulip or yellow poplar for the final stand with a financial rotation in view. It is designed in this experiment to determine, if possible, the most profitable way to manage a forest crop of this species.

Accordingly, the tract was divided as nearly as possible into four equal parts, with a space of twelve feet between the divisions for a turn row. The divisions are designated as follows: Part 1, containing one-fourth of the tract; part 2, containing one-fourth of the tract; part 3, containing seven-thirty-sixths of the tract; part 4, containing eleven-thirty-sixths of the tract.

The tract was plowed late in the fall of 1910, and this spring, just before planting time, it was disced and marked out, 4x4 feet, at a total cost of \$3.09 per acre. The four parts were planted on April 27, as follows:

Part 1 was planted with tulip and locust, alternately, 8x8 feet apart. This part contains 697 tulip and 697 locust. Corn was planted in the cross-sections between the trees as an undercrop. The trees and corn in this part received five cultivations during the season.

Part 2 was planted with tulip, 8x8 feet apart. This part contains 1,394 trees. Corn was planted in the cross sections between the trees as an undercrop. The trees and corn in this part received five cultivations.

Part 3 was planted with tulip and locust, alternately, 4x4 feet apart, and received five cultivations. This part contains 2,362 tulip and 2,362 locust.

Part 4 was planted with tulip, 4x4 feet apart, and received five cultivations. This part contains 6,787 trees.

The tract was planted with seedlings twelve to eighteen inches long. The tulip cost \$3.20 per thousand, delivered, and the locust \$2.10 per thousand, delivered.

A tabulated statement of the items of expense and credits for the several parts for the year is as follows:

Part 1. Preparation of the ground, seedlings and planting.....	\$12 76
Fertilizer for corn, planting corn and five cultivations.....	8 57
Cutting and husking 38 shocks of corn.....	4 93
Total	\$23 26
Credited by 28 shocks of fodder at 10 cents each and 47 bushels of corn at 50 cents per bushel.....	27 30
The undercrop pays all expense to date with a balance of..	\$1 04
Part 2. Preparation of the ground, seedlings and planting.....	\$13 54
Fertilizer for corn, planting corn and five cultivations.....	8 57
Cutting and husking 38 shocks of corn.....	4 93
Total	\$27 04

Credited by 38 shocks of fodder at 10 cents each and 47
bushels of corn at 50 cents per bushel..... 27 30

The undercrop pays all expense to date with a balance of.. \$0 26

Part 3. Preparation of the ground, seedlings and planting.....\$25 91

Five cultivations 5 47

Total\$31 38

Part 4. Preparation of the ground, seedlings and planting.....\$43 37

Five cultivations 7 08

Total\$50 45

The items of expense and credits on each part will be added each year, so that the value of each part may be obtained at any time by crediting the account with the estimated value of the stand. Thus a comparative value of the four parts may be obtained and a satisfactory answer be given to the question which one of the four parts is the most remunerative at any period. A comparison of the four parts will also show which method of management will produce the best quality of wood and on which part the diameter and volume growth has been the most rapid.

The question naturally arises, which of the parts will be the most remunerative in fifty, seventy-five or 100 years? Let a prediction be made for a period of fifty and seventy-five years, using in the discussion silvicultural experience, current prices, present uses of the wood and the present proximity to market. Of course it would appear safe to assume that in fifty years, labor would be cheaper and stumpage value higher. In the following discussion, additional expenses, such as interest on land investment, taxes and management are not considered, since they would be about equal on the four parts.

By referring to the preceding tabulated statement of the items of expense on part 1, it will be observed that at the end of the first year it had an asset of \$1.04, which should be considerably increased by the proceeds of next year's undercrop. In about twelve years the part could be thinned by cutting out the locust, which at this time should be large enough to make an average-sized fence post, with a stumpage value of 8 cents each. It will be noted that when the trees are planted 8x8 feet apart that few of them would be totally suppressed by this time, and since the stand was complete in the beginning it appears that a loss of 14

per cent. by death, by suppression and by being undersized would be a liberal allowance. This leaves 600 trees valued at 8 cents each, or a total of \$48 to be credited to this part, which alone is a fair rental for the quality of ground planted, and an important item if it would be found necessary to terminate the investment at an early period. The assets on this part, at 6 per cent. compound interest, carried to the end of fifty years, would amount to \$458, and at the end of seventy-five years to \$1,964.

Part 2 also ends the year with an asset which would be increased by next year's undercrop equal to that of part 1. Now the thinnings on this part under twenty-five years could be utilized practically only for fuel, pulp and excelsior. Fuel of this species and size in this State would have little or no stumpage value. Since there is no pulp mill in the State, long transportation would cancel the stumpage value. There is, at present, but one excelsior factory in the State, and timber of this size would have little or no value. In this part the final cut is about the only source of revenue that could be expected. The asset at the end of the first year on this part of 26 cents, at 6 per cent. compound interest, in fifty years would amount to \$5, and in seventy-five years to \$19.

Part 3 ends the year with a debt of \$31.38, which may be liquidated when the locust are large enough to cut. Planted as near as the trees are in this part, it would take the locust at least fifteen years to equal in size those in part 1 in twelve years. Now it is problematical how many of each species in this part would be suppressed by this time. It is fair to presume that at least half of each species will have been suppressed. This would leave 1,181 locust to be cut, with a stumpage value of 8 cents each, or \$94.48 for the part. The original cost of \$31.38 at 6 per cent. compound interest for fourteen years amounts to \$70.72, which, subtracted from \$94.48, leaves an asset of \$23.76, which, carried at 6 per cent compound interest to the end of fifty years, amounts to \$183, and at the end of seventy-five years to \$784. This part also has the advantage of being a safer investment, and, when compared with the other parts, a smaller loss would be sustained in proportion if it was found necessary to discontinue the investment at an early period.

Part 4 ends the year with a debt of \$50.45. The value of the thinnings on this part would be similar to that of part 2, and the only source of revenue that could be expected would be the

final cut. Now the original item of expense of \$50.45, at 6 per cent. compound interest, in fifty years would amount to \$929, and in seventy-five years to \$3,982.

The following is a comparative financial statement of the parts at the end of fifty and seventy-five years, based upon the preceding figures and figuring parts 3 and 4 to contain the same area as parts 1 and 2 and proportioning the cost accordingly:

	At 50 Years.	At 75 Years.
Part 1 has an asset of	\$458 00	\$1,964 00
Part 2 has an asset of	5 00	19 00
Part 3 has an asset of	235 00	1,008 00
Part 4 has an indebtedness of	759 00	3,258 00

Each part would also have a credit of the standing tulip, which no doubt would vary somewhat in each part. The most rapid diameter growth would be expected in part 1, where the trees are the farthest apart. The greatest number of trees to the acre would be expected in parts 2, 3 and 4. The best quality of wood would be expected in parts 3 and 4. Now the question remaining unanswered is, will the greater number of trees and quality of wood on parts 2, 3 and 4 equal the value of the undercrop and the early crop of locust in part 1. The difference between parts 1 and 4, expressed concretely, is \$1,217 at fifty years and \$5,222 at seventy-five years.

The foregoing hypothetical statement of the maturity of this tract is given to show the anticipated value of this experiment. Attention is called especially to the value of an undercrop in reducing the cost of a forest investment and the value of an early rotation of the crop. An early rotation diminishes the risk of fire, of windstorm and of the damage by insects and disease. It also gives greater security against decline in prices, removal of the markets and against a loss occasioned by some unexpected reason for ending the investment.

TRACT 43.

The greater part of this tract is a gentle eastern slope. The east third is low and flat. The natural drainage is to the south, through a shallow depression near the east side. Average elevation about 540 feet. The soil is a light clay loam. The area is 5.78 acres.

This is an experiment in planting an old cleared field with ash, elm and sycamore. It is designed to show the effect and

value of planting ash in a pure stand at a distance of 8x8 feet apart with corn as an undercrop. All of the tract that is adapted to the growing of ash was planted with that species. The low ground was planted in a similar manner with elm and sycamore in alternate rows. The value of pruning, if any, will be demonstrated by pruning one-half of the tract and leaving the other half to grow without pruning.

The tract was plowed last fall, disced and marked out 4x4 this spring at a total cost of \$3.20 per acre. The seedlings used were twelve to eighteen inches in length. The ash were grown in the nursery on the reservation and are estimated to cost \$1.75 per thousand. The elm seedlings cost \$6 per thousand, delivered, and the sycamore \$11.20 per thousand, delivered. The items of expense on this tract for the year are as follows:

Preparation of ground, seedlings and planting.....	\$51 19
Seed corn and planting the corn.....	5 22
Fertilizer	3 75
Four cultivations	13 32
Cutting and husking the corn.....	16 88
<hr/>	
Total	\$90 36
Credited with 123 shocks of fodder at 10 cents and 153 bushels of corn at 50 cents	88 80
<hr/>	
Expense balance	\$1 56

This tract will be cultivated and undercropped in corn next year, and the undercrop should more than pay the expense of cultivation, which will start the plantation free of debt.

TRACT 44.

This tract is comparatively level, with the natural drainage to the east. The soil is a thin clay loam. Average elevation, 625 feet. The area is 3.90 acres.

This tract was begun in the fall of 1906 by planting the seeds of chestnut and walnut, in rows five feet apart and five feet apart in the rows. Every third row was planted with walnut. The planting resulted in a fair stand of walnut, but the chestnuts failed to grow and elm seedlings were planted in their stead, and they also failed to grow.

This spring the spaces between the rows of walnut were plowed and two rows of locust planted in each space. Locust is adapted

to the soil and was planted as a nurse crop, to be removed when the plantation needs thinning. The locust at that time should be of sufficient size to have some commercial value.

No account was kept of the items of expense of this tract prior to 1910. The items of expense for the present year are as follows:

Preparation of ground, 3,562 locust seedlings and planting.....	\$22 68
Four plowings and hoeings	13 12
Total	\$36 10

The locust seedlings practically all grew and did fairly well, considering the dry season and that they were set late in the season on account of the wet spring.

FOREST CLEANING.

Very little forest cleaning was done during the year. All that was done was near the administration building and along the roads at odd times by the custodian and teamster. About one hundred and fifty dollars was spent in cleaning and grubbing the old fields for the fall and spring planting.

INSECTS.

The insect damage this year was of little consequence.

The tract of Kentucky coffeenut was attacked by the blister beetle about the middle of July and was partially defoliated. The injury was so late in the growing season as to be of little damage. since, by actual measurement, it was found that the coffeenut had completed its growth by the first of June.

Last year, in September, many of the beetles (*Xyloryctes satyrus*) burrowed into the ground at the base of the ash trees in Tracts 1-A and 1-B. It was anticipated that the larvae would attack the roots of the trees, but this year no trace of either larvae or adults has been seen. The ground around the trees was bare, and it may be that the beetles perished during the winter.

The larvae of a species of *Datana* partially defoliated the pecan last year, but they did not appear this year.

A blight suddenly appeared in the tract of chestnut in June and several of the trees were partially killed before it ceased.

This year the catalpa sphinx appeared about June 15th in Tracts 40 and 42, and in the fall in Tract 33. The second brood appeared about September 15th. The damage was slight, since

only a few trees were completely defoliated. The sphinx appeared in patches, attacking five to eight trees in a place and usually only partially defoliating them. In Tract 33 they were noted in four places only.

Last year the locust borer attacked several of the largest trees of the two older locust plantings, but no evidence of them was seen this year.

The locust twig borer attacked the locust in Tract 25, which was planted this year. It is estimated that 25 per cent. of the terminals have been injured.

FOREST FIRES.

Great precaution is exercised to prevent fires. No fire escaped on the reserve during the year, neither was it invaded by fire. No hunting or smoking is permitted, and hunting and forest-fire signs are posted in conspicuous places on the reserve and every few hundred feet around the boundary. The fire lines are carefully kept and a supply of fire-fighting apparatus is kept in readiness at two points on the reserve.

GENERAL IMPROVEMENTS.

The condition of some of the buildings was such that it was decided to do the following painting: The barn near the administration building was given two coats, the porch of the administration building was given one coat, and the traction line station, which is the property of the reserve, was also given two coats. All the buildings on the reserve are now well protected with paint.

The roof of the old shed in which tools, were kept was so badly decayed that it no longer protected the tools, so that it was necessary to put on a new roof. An examination of the building showed that it had no foundation and that the structure was supported by wood posts set in the ground, which were nearly rotted off. It was decided that the building was not worth repairing and a new building was ordered constructed and located in a more convenient place.

Accordingly, a combined tool shed, woodhouse and work shop was planned and located near the administration building. The old building was torn down and such material as could be used in the construction of the new one was utilized. The building was made forty feet long, twenty-four feet wide and twelve feet

high to the square and was placed on a solid concrete foundation. It was sided to match the barn and was covered with galvanized roofing.

The items of expense were as follows:

Lumber and sawing	\$84 08
Cement and sand	17 50
Hardware	14 35
Roofing	62 98
Labor	105 00
<hr/>	
Total	\$283 91

VISITORS.

The value of the experimental station as an object lesson in growing forest trees is becoming more apparent each year. A majority of the visitors come as students of their special forestry problems and spend as many as three days in studying the several forest tracts. Persons who visit the reserve through curiosity are becoming fewer each year.

During the year 410 visitors registered at the headquarters, and many visited the reserve who did not register. The number of the visitors by States is as follows: Indiana, 370; Kentucky, 20; Oklahoma, 5; Minnesota, 4; Kansas, 3; Michigan, 2; California, Iowa, Louisiana, Missouri, Pennsylvania and Washington, D. C., 1 each.

RECEIPTS FROM SALES.

The receipts from sales for the fiscal year were as follows:

1910.

Dec. 5.	M. H. Dunlevy, 1 bushel apples.....	\$1 00
	Mr. Nevills, 1 cord 4-foot wood.....	1 75
	Dr. Prall, 1 cord 4-foot wood.....	1 75

1911.

Jan. 5.	Alex. Neville, 2 cords 4-foot wood at \$1.75.....	3 50
	Ed. Sauers, 1 cord 4-foot wood at \$1.75.....	1 75
	H. Richardson, 10 shocks fodder at 10 cents.....	1 00
	Alex. Neville, 1 cord 4-foot wood at \$1.75.....	1 75
	F. Metzger, 1 cord 4-foot wood at \$1.75.....	1 75
Jan. 31.	Alex. Miller, 1 cord 4-foot wood at \$1.75.....	1 75
	Ed. Sauers, 1 cord 4-foot wood.....	1 75
	L. A. Edwards, 2 cords 4-foot wood.....	3 50

Mar.	1.	Louis Rueff, 1 cord 4-foot wood.....	1 75
		Newt. Plumber, 1 cord 4-foot wood.....	1 75
		Alex. Neville, 3 cords 4-foot wood.....	5 25
		Cauble & Dunlevy, 1 cord 4-foot wood.....	1 75
Apr.	6.	Henry Richardson, 35 shocks fodder at 8 cents.....	2 80
		Chas. Guernsey, 15 shocks fodder at 8 cents.....	1 20
July	6.	Chas. Francke, 6 bales wire at \$1.75.....	10 50
June	5.	Chas. Dean, 155 ties in log at 10 cents per tie.....	15 50
		Alex. Neville, 2 cords wood	3 50
		John Gibson, 10 shocks fodder at 8c.....	80
		W. D. McKain, 1 cord 4-foot wood.....	1 75
Sept.	6.	W. D. McKain, 1 cord 4-foot wood.....	1 75
		Jas. L. Boling, 1 cord 4-foot wood.....	1 75
Total			<hr/> \$71 30

Office Work.

The work of the office, in the greater part, was as follows:

First: The answering of inquiries that came to the department through personal visits and correspondence.

Second: The work of topically cataloguing the library accessions.

Third: The administration of the Forest Experimental Station and recording data accruing from the experiments in progress.

Fourth: Field work.

Fifth: Creating an interest in forestry by issuing press bulletins, offering a prize for the best essay on forestry and in making a preliminary study of the woodworking industries of the State.

Correspondence.—The inquiries that came to the department were practically all in the nature of seeking information on forest planting. Landowners wish to know what kind of trees to plant; the distance apart the trees should be planted; where to buy the seedlings, etc. Only one inquiry was received asking where timber could be sold to the best advantage. This inquiry came from a non-resident who had an undivided interest in Indiana land. Owners of timber are never at a loss to find buyers.

During the year 1,289 first-class letters were received, and 1,427 first-class letters were mailed. There were also mailed 2,096 first-class circular letters and 5,374 second-class circular letters.

There are frequent requests for the annual reports and the supply previous to 1910 has been exhausted, except a few copies of 1903 and 1909. In September a janitor discovered about 300 copies of the 1903 reports that had been stored in the basement for years, which accounts for the remaining copies of this report. There were repeated requests for back reports, which can not be filled. The number of reports mailed during the year was as follows: One of 1901, thirty-nine of 1903, two of 1906, fifty-eight of 1907, twenty-seven of 1908, five hundred and sixty-six of 1909 and 838 of 1910, making a total of 1,532.

Library.—The total number of accessions is 1,068. During the year 302 accessions have been made. An effort is made to obtain for the library all the State and Federal publications bearing upon the subject of forestry.

Press Bulletins.—The number of press bulletins issued the past year was not as large as was desired. Neither time nor money permitted of the issue of more. The press bulletins are deemed to be of sufficient importance to be reproduced, and are as follows:

[Press Bulletin No. 11.]

PLANT A TREE.

Many years ago it was a custom when a child was born to commemorate the event by planting a tree. Today there are many trees sacredly guarded because they were planted by or for someone whose memory it was desired to perpetuate. Every reader of this article no doubt recalls one or more trees with which are associated pleasant recollections. It may be the one in the yard under which you were accustomed to play. It may be the one that sheltered you when overtaken by a storm on your way to and from school. It may be the one on the river bank under which you sat with fishing pole in hand. It may be the one under which you and your lover exchanged vows, or it may be made dear to you by any one of the many incidents of life. When your child is grown, give it an opportunity to possess a living tree which it can call its own. Mary's and John's trees will always be cared for with tender hands, and when their namesake has forsaken the old homestead, there will always be a yearning to see "my tree" again.

[Press Bulletin No. 12.]

TEN DOLLARS FOR ESSAY ON FORESTRY.

In order to encourage the study of forestry among the pupils of the public schools, the State Board of Forestry is offering four prizes of \$10 each for the best essays on forestry. The contestants for the first prize are limited to the pupils of the seventh grade country schools. The second prize is for the pupils of the eighth grade country schools. The third prize is for the members of freshmen and sophomore classes of the high schools of the State. The fourth prize is for the members of the junior and senior classes of the high schools. The conditions are as follows:

The subject must be "To what extent should Indiana be reforested; give reasons." The essay must be a hand-written manuscript in ink, containing not more than one thousand words. The essay must be in the hands of the board on or before May 1, 1911. Former prize essay winners are not eligible. The essays are to be graded on the basis of 70 points for thought, 30 points for composition, manuscript, etc. The board wishes original thought and no credit will be given contestants who copy verbatim works on forestry. If direct quotations are used they should be indicated by quotation marks and their source given in a foot note. It is hoped that every boy and girl, eligible to compete, who reads this will send an essay.

Address your essay and inquiries to Chas. C. Deam, secretary, State Board of Forestry, Indianapolis, Indiana.

[Press Bulletin No. 13.]

GUN CLUBS TO BUY HUNTING RESERVES.

It has been suggested that gun clubs, or a number of sportsmen, form a company for the purpose of buying large tracts of hilly woodland of southern Indiana, and convert them into forest and hunting reserves.

There are thousands of acres in that part of the State which are too hilly and broken to be profitable for farming. It was ordained by nature to be a forest and the hunters' vacation ground. If you cannot go to the wilds of the Adirondacks, you can bring the wilds to you in Indiana. Interest a few of your friends in the plan of buying a 500-acre tract or more, and build a nice clubhouse on it. Maintain the best house you find on the tract for the residence of the custodian, who can farm a few of the best fields, guard the reserve and transport you to and from the reserve. All the remaining cleared land and open woods should be afforested. In a few years the tract will be well stocked with game.

Such an enterprise would not merely develop a hunters' paradise, but the timber products would yield a good per cent. on the investment.

[Press Bulletin No. 14.]

GREAT LOSS BY WATER.

Many farms are partly ruined by erosion. The farmers in the southern part of the State have suffered the greatest damage. There are many fields and parts of fields in southern Indiana that

have been abandoned because they are so badly eroded that at present they can not be profitably farmed. Even grass will not grow on them, because the top soil has all been washed off, and now briars and bushes are taking possession.

This article is to remind owners of such property that the only way to reclaim eroded land is to plant forest trees on it. Forest trees will stop the washing and soon grow into money. Remember that a gullied field on a farm depreciates the value of the remainder of the farm.

The kind of trees to plant would be black locust, ash or yellow poplar, and seedlings may be bought for \$2 to \$5 per thousand. The trees should be planted in the spring, before the rush of spring work begins. If you have a gullied field, decide now to save it. If you are not certain as to what kind of trees to plant, or where to buy the seedlings to the best advantage, write the State Forester, Indianapolis, Indiana, for information and printed literature, who will be glad to assist you.

Issued December 16, 1910.

[Press Bulletin No. 15.]

SAVE THE BANKS.

Save the banks of your ravines, creeks and rivers by encouraging grass, shrubs and trees to grow on them. Where you find the bank of a stream perpendicular you will usually find a tree on its top which protects it until the support beneath is washed away, when it tumbles to a watery grave. This reminds us that our streams are ever increasing in width, and many of us can recall when the fence stood a rod closer to the center of the stream.

The same may be said of the banks of deep cuts along highways and railroads. If there is a bluegrass sod on top the bank it will be perpendicular for six to twelve inches, and the nude roots form a miniature ledge, which is sufficient to show the value of bluegrass as a soil binder. If it is not desirable to plant shrubs and trees on the roadside banks, sow the slopes with bluegrass seed, and scatter cornstalks on it, which may be prevented from washing away by weighing them down with pieces of old rails, brush, etc. When the bluegrass is well set the wash will be stopped.

The banks of creeks and rivers may be best protected by planting willows at the base. At the top white ash, black walnut, oaks and hickories may be planted, choosing the species best adapted

to the soil conditions. If the bank is low and flat, sycamore and elm may be set back of the willows. If conditions will warrant trees of a higher commercial value than elm and sycamore should be planted. The slope of the banks should be sown with bluegrass, and if there is too much shade for bluegrass, they should be planted with vines and shrubs that will endure shade, such as American sarsaparilla, briars, cornels, bladder nut, wahoo, wafer ash, etc.

Neglect to fortify the banks of our streams means an annual loss of many acres of valuable land, whereas if they were planted with trees they would not only be protected, but would grow valuable timber.

Issued January 16, 1911.

[Press Bulletin No. 16.]

REPEAL THE LAW.

Our wide-open ditches were once small creeks which have been straightened and dug deeper and wider in order to facilitate drainage. These wide creek-beds, together with the two broad ridges of earth on each side of the ditch, usually occupy about two rods of space. This space is waste land and produces nothing but a crop of weeds.

Now it is proposed to reclaim such waste land by planting trees on each bank. If forest trees are planted, such species should be selected as grow a deep root system, produce little shade and have a high commercial value, such as black walnut, ash, hickory and poplar. Orchard trees would have the advantage over forest trees in that they would not grow so tall and would shade the adjacent land less. If the ditch and its banks are narrow, the banks could be planted with peach and plum trees.

By planting trees, not only would the waste land be made remunerative, but the trees would assist in holding the banks. When these ditches were dug the sides were left very steep, and subsequent rains, alternate freezing and thawing have loosened thousands of tons of earth from the sides of the ditches, which has in a greater part been washed away and the remainder deposited at the bottom of the ditch to increase the cost of cleaning it out. In the spring of the year it is not an unusual thing to see a stretch of bank a foot in width slip into the ditch and be lost forever. Wise landowners will see that ditch banks are protected by plant-

ing some kind of trees, shrubs or vines, whose roots will hold the banks and whose wood or fruit will be of value.

But the State law says "owners of land through which an open ditch runs shall remove all brush and weeds from the banks of that part of the ditch through the lands owned by them respectively, during the month of July of each year." The intent of this clause was to prevent the ditch filling up, but the contrary is true. The trees assist in preventing the banks from caving in, and stop lots of rubbish that would otherwise blow into the ditch. It is easier to clean a few leaves out of the ditch than to shovel out tons of mud, and to be deprived of the use of the ground along your ditches. If you think this law should be revised, write your legislator at once.

Issued January 23, 1911.

[Press Bulletin No. 17.]

INFORMATION ON FOREST PLANTING.

What kind of forest trees are best adapted to Indiana planting; how far apart the trees should be planted, to what extent the young trees should be cultivated and pruned; how fast they grow, and what per cent. on the investment the landowner may expect, are problems on which the State Board of Forestry is working. They now have twenty-nine tracts at the Forest Experimental Station planted to the most promising kind of forest trees. These tracts have been under observation now for several years, and each year they are regularly hoed, plowed and pruned. Every item of expense and every observation made is carefully itemized and recorded. Thus, by recording and tabulating data on forest plantings, general and correct principles of forest culture can be worked out.

The forest experimental tracts are located in the south part of the State, and what is true of trees in that part of the State might be different in the central or northern part of the State. So the forestry board expects to extend its investigations and observations to forest plantings in different parts of the State.

To do this it is proposed to coöperate with persons who expect to do forest planting. The board is not in a position to lend financial aid to planters, but it proposes to give suggestions as to the best kind of trees to plant, how to prepare the ground, how to care for the trees, etc., and to make visits of inspection. In return the owner of the planting is expected to keep a record of all items



Miss Mary Mason
Mecca, Indiana



Miss Mabel Adair
Lebanon,
Indiana



Miss Gladys Jones
Attica,
Indiana



Miss Cora Dougherty
Bedford, Indiana

of expense, and make observations, which are to be forwarded to the office of the secretary, where a permanent record of the planting will be kept. If you expect to do any forest planting it will pay you to write to the State Forester at Indianapolis for his plan of coöperation.

In this work the planter is free to do as he pleases. He plants the kind of trees he chooses and manages the way he thinks best. He gets the advice of experts without cost. At present the board expects to limit the number of coöperative plantings to 100, so do not delay in taking advantage of this offer.

Issued January 30, 1911.

[Bulletin No. 18—Sheet One.]

TO WHAT EXTENT SHOULD INDIANA BE REFORESTED?

The uses of the forest are numerous. Besides yielding many useful and necessary articles, such as turpentine, resin, tar, timber for fuel and lumber for building purposes, the forest is a soil former, a sod improver, a soil fixer, a flood preventer, a conservator of moisture, a wind break, a beautifier of the earth, and a sanitary agent; as it is one of the greatest protectors of mankind, its presence is most necessary to our well-being.

In Indiana the protection which the forest gives is of far greater importance than the products which it yields. They can easily be brought into the State from some of the regions of the United States which are unfit for agricultural purposes but which are well-suited to the needs of the forest. But the protection which the forest renders cannot be thus transferred.

Unlike many States, Indiana has no mountains, and very few rivers which need the protection of the tree. In this State the chief aim of reforestation is to establish small forests throughout the State, the purpose of which is not to produce lumber, but to protect the people living about it by acting as a wind-break or flood preventer.

As has been said before, in many States the main purpose of reforestation in general is to provide future supply of timber, but in Indiana this is not the case. This State is well adapted to agricultural pursuits, as it lies in one of the most fertile farming districts in the world. It would seem almost wasteful to devote such land to forests when there are so many acres in the United States which are unfit for farming purposes but capable of producing

excellent trees. They might furnish timber and lumber to Indiana, while it raises wheat and corn for them.

So Indiana ought to be reforested only to such an extent that its people would receive all the forest protection that it needs.

Indiana now has a forest reserve of 2,000 acres, located in Clark County. It is maintained solely for experimental purposes to obtain data concerning the growth and need of the various trees and to demonstrate the value of the forest to the people.

At present reforestation must be carried on by the State. The growth of the tree is very slow, thus making the investment, which is increasing rapidly by compound interest, too long unavailable and too slow in producing returns for the farmer to undertake it again. Most of the land is divided into small farms, ninety-seven and four-tenths acres being an average-sized farm. The farmers are obliged to cultivate all their land in order to provide food for their families; therefore, they object to giving it up to reforestation, especially when they cannot see the value of the forest.

It has been suggested that the State compel each landowner to forest a certain per cent. of this land, but there are several objections to such a plan; first, it would throw the burden of reforestation upon the farmer; second, the land changes hands so often that it would be difficult to keep any one spot forested for a definite length of time. For instance, Mr. B. and Mr. S. each own 160 acres of land. According to the requirements of the law each should have a four-acre forest. Now Mr. B. sells eighty acres of his land to Mr. S. According to law Mr. B. is at liberty to cut down one-half of his trees, while Mr. S. must add two acres to his forest, consequently the people are without the protection of the forest for at least twenty years. Third, if this plan were followed a great deal of good farming land would be devoted to forest, while much of the waste land, which needs the forest more than the farming land, would stand idle. The State must own and develop and protect the forests, at least, until the people come to know their value.

Of course, all waste land should be reforested. By the term waste land we mean untillable land, such as hillsides, ravines, land too poor to raise the ordinary crops, such as wheat and corn, and fields which cannot be cultivated because of frequent overflow. In the southern part of the State and in the Wabash Valley there are many hillsides so steep and rocky that it would be impossible to till them. They are covered with large stumps, showing that they are adapted to the needs of trees and that a fine

forest grew there at one time. Such land should be forested. They can be utilized for no other purpose. Then a forest planted there will give the people living near it the same protection that it would planted on a level, fertile field capable of producing excellent crops of corn.

The forests have proven themselves soil formers, soil fixers and soil improvers. For this reason all the land too poor for farming purposes should be reforested.

Every year in this State a great amount of property is destroyed and much suffering is caused by floods. All this might be prevented by planting trees along the banks of the rivers, where floods are frequent. They would absorb the moisture and thus prevent the floods.

Now, if the purpose of reforestation is carried out woodlots must be established throughout the State. Every section of land should have its own forest. Most sections have land which cannot be well used for farming purposes, either because of its location or the character or quality of its soil. All such lands should be seized as an eminent domain and productive forests planted on it. If such lands are forested and properly cared for very little of our farming land need be devoted to the forests. But after the forests are established they must be taken care of, for a neglected forest is worse than no forest.

In reply to the question, "To what extent should Indiana be reforested?" I would say, briefly, so much that all the waste land be utilized and the necessary protection against the natural elements be given.

GLADYS JONES.

Attica, Ind.

Senior Class, Attica High School.

TO WHAT EXTENT SHOULD INDIANA BE REFORESTED?

The forests of Indiana are being cut down so rapidly that if some restraint is not put on this work of destruction the forests will, in a short time, be only a remembrance among the "Hoosiers." The people in early days can be pardoned for cutting down trees, for they had to do it to clear places for their homes and to prevent beasts and enemies from hiding around. Besides they were not taught the economical importance of the forests. There were many trees then, but wood for fuel and lumber is becoming so

scarce now that the preservation and restoration of our forests is a very important problem, hence the question, "To what extent should Indiana be reforested?" confronts us.

The places that should be reforested are the sections of land not adapted to agriculture. Hilly country is not suitable for farming, it cannot be easily tilled, and the soil has generally been washed off the rocks. There are many acres of such land in Brown County. If the lands that have always been poor or have been made so by improper usage should be properly reforested, the leaf-mould caused by the fallen leaves would enrich them and make them valuable. A great many tracts of land are located so as to be unprofitable for agriculture. They may be too far away from town or from the owner's home. Some plots are too small, being cut off from large fields by railroads, creeks or roads. Many streams wash banks and make them irregular. If the right kind of trees were set out, they would have a tendency to hold the banks in.

Public property and lands not used for anything else should be utilized for trees. If trees were neatly and tastefully arranged around churches, schoolhouses, jails, libraries, halls and court-houses they would be a protection, would beautify the surroundings, and around the schoolhouses would serve as a shade for the pupils during playtime. Trees should be set out on roadsides and public highways, to serve as windbreaks for the protection of the traveler and to beautify the roads. Of course, the old question would arise concerning the drying of the roads. It should be a supervisor's duty to keep the roads well graded, the trees well trimmed, and it would not be necessary for the roads to be muddy. There are large government reservations not being used at present which should be reforested.

Trees should be set out along the streets of our towns and cities between the sidewalk and the curbing. The street, indeed, looks beautiful that is well shaded by tastefully arranged trees. Every town or city should have a park to beautify them or to be a place of pleasure. What is a park without some trees?

Where or who is the farmer that does not like a beautiful country home, which cannot be made so unless some trees are used? How pretty is the small woodlot near the home of the farmer? Every farmer should have a woodlot. Ten acres would be the required amount on a farm of 160 acres in Boone County. The woodlot serves as a protection to the buildings and orchard, also a convenient place to put young animals in, if it is placed near

the home. The trees should be planted in straight rows and a certain number to the acre. The number depend on the kind of trees. The dead trees and the trimmings from the others would furnish enough wood for domestic use.

There are many things which lead us to believe Indiana should be reforested. The high price of lumber and firewood is due to the scarcity of trees. Some day there will not be any coal, for it takes decayed leaves and other plants to form it. The people then will have to depend entirely on wood for fuel. Trees retain moisture by their leaves and roots. The leaves form a thick carpet over the ground and prevent such rapid evaporation. Thus, by reforesting, the natural resources would be increased, the home would be more beautiful, and would serve as a check to floods. Hence, under all these conditions, why should not Indiana be reforested?

MABEL ADAIR,

Lebanon, Ind.

Sophomore A, Lebanon High School.

[Bulletin No. 18—Sheet Two. Released June 5, 1911.]

TO WHAT EXTENT SHOULD INDIANA BE REFORESTED?

There are so many reasons why we should use our best efforts to replace the forests of this State that they could not be easily be numbered.

Several years ago people were awakened to the fact that our trees were rapidly disappearing, because the cost of timber, and especially hardwood of Indiana, had, in a few years, so many times doubled its value of an age ago.

My father says that during his boyhood days lumber products were so lightly regarded that beautiful hardwood trees, such as one could scarcely find for a good example now, were cut down and cleared away with the waste wood, or burned in a huge fireplace, where it might as well have been substituted by soft wood, had they used any forethought in preserving their valuable timber.

When we note what a few years time has done it gives us a very vivid picture of a treeless State in the near future, unless all co-operate and work to make it otherwise.

For some time a great many people have been interested in this movement to reforest the State, and much good has been done, but there is still a large task for us to perform to convince and educate the people to the practical results of this work.

The slow growth of trees is discouraging at first thought, when our parents think of this work from the standpoint of money, but many of our farmers or landholders have land which is of no use unless it could be utilized in this manner, and former experiments by men of this State goes to prove that it will not be a losing investment to set apart a tract of land to plant to forest.

It has been found that the cost of your time and labor in raising seedlings, preparing the ground, then planting, pruning and cultivating the young tree is easily covered by their value in a short while as posts, which you will have when you thin out your growth, besides you may use ground which is only used for pasturage, and this might be continued to some extent, or if the soil is suitable potatoes or corn might be grown with the seedlings during the first two or three years. They are soon valuable also for shade, windbreaks or ornamentation.

The fellow with a young forest will find his land far more desirable to the prospective buyer, thus you may be sure that the trees you plant will be of worth should you not be the one to reap the benefit of their maturity.

Other evils which come from deforestation may be found among the hilly regions of the State.

As the trees disappear the soil of a hillside decreases in value, since the rich top soil is easily washed away, and after a few hard spring rains a hillside field may become almost worthless.

It is also to be noted that small streams disappear and floods from the larger streams are more frequent as the trees are cleared away.

It is also a fact that people all choose bottom land in preference to the hilly districts for the farm home, while not many years ago many almost worthless hilly regions of today were valuable.

Droughts are becoming more common as our forests go, because the loose leaf mulch then goes, leaving a soil so compact that the water is washed off and only a very small amount is held by absorption.

This leaf mulch also helps to prevent evaporation, and thus more ground water is preserved until taken by plant roots.

Trees take a great deal of water from the soil, and moisture is constantly thrown off by the leaves. This is a help during the hot months to prevent dangerous thunder storms.

These floods and droughts destroy much animal life. A flood may carry a great number of small fish out in larger streams, where they are consumed by larger ones, or during a flood fish may

enter a flooded area for the purpose of spawning, then the later droughts came, which resulted in the death of the young fish and other animal life upon which they feed, until it seems almost useless to try to replenish streams with fish until a preventative is used for droughts and floods.

Forestry is now part of our school work, and if we boys and girls band together and properly observe Arbor Day we will be amply repaid in the future with beautiful trees, their shade and a home for our birds.

CORA E. DOUGHERTY,
Bedford, Ind.

Eighth Grade. Country Schools.

TO WHAT EXTENT SHOULD INDIANA BE REFORESTED?

First of all, any spot on earth (therefore Indiana) should bear upon its surface all that nature, and by nature we mean the wisdom of God, endowed it.

Trees, flowers and grasses are a connecting link between heaven and earth, and where man has intentionally or otherwise robbed the earth of this charm what is more his duty than, so far as is in his power, to replace it.

Looking at the matter from a purely practical point of view, it is easily seen that the economic value of timber, even in a growing State, is sufficient reason for reforesting the land.

Men have learned too late that the leaves of the growing trees expire great quantities of water, which taken care of by the sun, winds and varieties of moisture, furnishes to the world the showers which are everything to the vegetation.

It is said that Indiana soil will grow as good or better timber in accordance as any other State in the Union.

We can readily perceive the protection which heavy forestry affords our crops from cold waves, droughts and such inconveniences which are often to be dealt with in this part of the country.

Where there is no timber, ground ceases to build and improve because of the lack of falling leaves and twigs which from year to year add to the richness of the coat of loam which is so valuable.

Timber is valuable for fuel as well as building purposes, as we know the coal will soon be gone, as there is but a small quantity at the present time, and fuel will have to be imported, which is a heavy expense to the State.

Ground denuded of trees becomes disfigured by the soil being washed away by heavy rainfall, because of the lack of roots which is between the bedrock and the soil proper.

This disfiguration of the surface of the land is noticeable in our own State, which has been denuded of its forests only a short while; and as the years pass the conditions will, of course, become worse.

Travelers in Spain and China notice this condition even in that far country, which is every day growing worse.

While men have learned to make buildings without so much timber as was formerly used, there are places, and, indeed, ever will be, where nothing will answer so well as the walnuts, oaks and pines for the beautiful architecture which is always wanted in a building.

Summing up, then, the reasons why Indiana should be reforested, we would say to replace, in a small measure, at least, nature's primitive adornment, which, like the trimming on the maiden's hat, is the portion that attracts; to preserve from greater disfiguration the land surface itself, the roots of the trees, and the foliage mass, preventing, in a way, the washing away of soil, the making of ditches, gutters, etc., on slopes and plains; the furnishing, in a purely economical way, if not ornamental, of material for furniture, casings and building furnishings. Now, like the division of labor among the people of a community, or the members of the body, so the trees that drew their sustenance from the earth should and will return a hundredfold that which it has taken, by laying their coverlets of leaves to be converted into loam, by adding their tons of water to be returned as rain to feed spring and river.

Added to all this, we have the shelter from storm and sun, the nests, the home of birds, bees and beast; in short, it is impossible to enumerate the many uses which trees supply in the world. Bryant may well ask us the question, "What do we plant when we plant a tree?"

The nations of the old world are already at work replacing the groves that were ruthlessly destroyed, and are sparing neither expense nor labor in doing so.

No one who considers the matter in a fair light but will add their voice in commendation of the work, not only in the old world, but in that much loved section of the new which bears the name

of Indiana. Since "The groves were God's first temples" let us replace those temples which our own hands have so carelessly torn down.

MARY MASON,
Mecca, Ind.

Seventh Grade. District No. 8.

[Bulletin No. 19. Released July 7, 1911.]

HAVE WE MADE GOOD? COME AND SEE.

Is it possible to reforest Indiana? Can we make forest trees grow in Indiana? Are you interested in forest planting or keeping up your woodlot? If you are you should accept the invitation to visit the forest reservation on July 27th. Arrangements are being made to show the people what has been accomplished in the way of forest planting in the past seven years. There have been over thirty tracts planted on the reserve with the following species: Ash, catalpa, yellow poplar, black locust, oak, hickory, elm, chestnut, pecan, buckeye, coffeenut, sycamore.

There you can see which are the most promising trees to plant in Indiana; the distance apart you should plant the various kinds of trees; how you should cultivate and prune them. Remember that an object lesson is worth more than what you read or what tree agents tell you. If you are interested it will be a good investment for you to see the many fields and hillsides that have been successfully planted to forest trees.

The reserve can be reached by going over the Pennsylvania line to Henryville, or over the Indianapolis and Louisville traction line. Take limited cars to Henryville. Local cars will let you off at the reserve.

The reservation hack will meet all trains, and guides will be furnished who will show you around over the reserve, consisting of 2,000 acres.

Some prominent people have been invited and are expected to attend.

For additional information address the State Forester, Chas. C. Deam, Indianapolis, Ind.

The prize essay bulletin resulted in much good. Pupils from all parts of the State entered the contest. Great interest was taken in it by county school superintendents, city school superintendents and teachers. Some teachers became so enthusiastic on the sub-

ject that they gave their pupils three months' work on forestry, and as many as eight essays were received from one school. The plan of offering a prize for the best essay has met with such success that the board has decided to offer prizes in 1912. The subject will be: "Woodlot conditions in the county in which I reside and suggestions for their improvement."

Circular Letters.—Several inquiries asking the title of books on forestry and conservation suggested the idea of writing the librarians of the State. Accordingly, on January 17, 1911, a circular letter was mailed to the librarian of each library of the State calling his attention to the increased interest in the subjects of forestry and conservation and asking him to supply his readers with literature covering these subjects. The following list was sent as a suggestion:

CHOICE BOOKS ON FORESTRY.

Practical Forestry, by John Gifford.- D. Appleton & Co., 1902.....	\$1 25
A First Book of Forestry, by Filibert Roth. Ginn & Co., 1902.....	1 25
A Primer of Forestry, by Gifford Pinchot, Parts 1 and 2, Bulletin 24, U. S. Division of Forestry.	
North American Forests and Forestry, by Bruncken, Putnam & Sons, 1908	2 00
Handbook of the Trees of the Northern States and Canada, by Hough, 1907. Published by author, Lowville, N. Y.....	8 00
Economics of Forestry, by Fernow. Crowell & Co., fourth edition..	1 50
History of Forestry, by Fernow. University Press, Toronto, 1907....	2 75
Care of Trees, by Fernow. Holt & Co., 1910.....	2 00
Trees of the Northern United States, by Apgar. 1892. American Book Co.	1 00
Manual of the Trees of North America, by Sargent. Houghton, Mifflin Co.	6 00
Report of the National Conservation Commission, three vols., 1909, Senate Document 676. Obtained through your Senator.	
The Conservation of Natural Resources in the United States, by Chas R. Van Hise. Macmillan Co., 1910.....	2 00
American Forestry, monthly magazine, published by American For- estry Association, Washington.....	1 00
Publications of the Department of Forestry of the U. S	
Publications of the Department of Forestry, Minnesota, New York, Michigan, Massachusetts, New Hampshire, Pennsylvania, Wis- consin, and others.	
Plant Life of Maryland, Vol. 3, published by the Weather Service of Maryland.	
The Forestry Reports of Indiana, Coulter's "The Forest Trees of Indiana," in the Trans. Ind. Horticultural Society for 1891, and Coulter's "Catalogue of Indiana Plants," published in Indiana Geological Report for 1899.	

This year a preliminary study of the woodworking industries of the State was undertaken. Accordingly, in July a circular letter with a statistical blank and stamped reply envelope, to the number of 702, was sent to each of the woodworking industries of the State. About 260 replies were promptly received. The delinquents were again written to, and in all 375 replies were promptly received. The data received is made the subject of a special report and will be found on page 59.

Field Work.—The field work consisted in inspecting woodlots in response to requests from owners who asked the secretary to examine their woodlots and to make suggestions as to how to improve and to manage them. Several plantations that were visited last year were revisited for the purpose of collecting additional data. The amount of field work was necessarily limited on account of lack of funds. The new plantations visited are deemed worthy of record and are as follows:

County.	Town.	Owner.	Species.	Trees.	Acres
Floyd.....	Edwardsville....	Beard, Maynard et al....	Black walnut.....		1
Fulton.....	Rochester.....	Scott, E. H.....	Catalpa.....	12,050	
Fulton.....	Rochester.....	Scott, E. H.....	Ash.....	600	
Fulton.....	Rochester.....	Scott, E. H.....	Wild cherry.....	4,300	
Gibson.....	Patoka.....	Hull, David.....	Catalpa.....	1,000	
Hamilton.....	Carmel.....	Johnson, W. S.....	Catalpa.....	1,200	
Hamilton.....	Westfield.....	Barger, C. D.....	Catalpa.....	300	
Henry.....	New Castle.....	Anderson, John.....	Catalpa.....	1,200	
Henry.....	New Castle.....	Hodson, Albert.....	Catalpa.....		1
Henry.....	New Castle.....	Hodson, Albert.....	Chestnut.....		1
Henry.....	New Castle.....	Painter, A. C.....	Catalpa.....	1,000	
Henry.....	New Castle.....	Payne, J. M.....	Locust.....	1,000	
Henry.....	New Castle.....	Stewart, Elton.....	Catalpa.....	600	
Henry.....	New Castle.....	Stewart, Elton.....	Catalpa.....	600	
Jefferson.....	Madison.....	Irwin, Chas. E.....	Locust.....	35,000	
Laporte.....	Laporte.....	Bosserman, Chas.....	Catalpa.....		13
Laporte.....	Laporte.....	Bosserman, Chas.....	Locust.....		2
Washington...	Salem.....	McCurrach, David....	Black locust.....	35,000	15

Some Features of the Climate of Indiana.

BY VERNE H. CHURCH, SECTION DIRECTOR, U. S. WEATHER BUREAU.

The absence of mountain ranges and large bodies of water within, or contiguous to, the State of Indiana, together with the level character of its surface, gives it a comparatively uniform climate. While Lake Michigan forms a part of the northern boundary, it has very little influence upon the climate of the State at large, as their relative positions do not permit of interchange of air currents in the regular course of the prevailing southwesterly winds. There are local effects produced by the lake over a limited area in its immediate vicinity, however. Altitude, direction of slope, character of surface, and various other influences affect the climate of individual localities, but for the State as a whole, the climate varies quite uniformly with the latitude. Following the rule which obtains where ideal climatic conditions prevail, there is a gradual increase in both temperature and precipitation from north to south, or, as it is often expressed, with decrease in latitude.

The accompanying chart (Plate 3) shows that the annual mean temperature ranges from slightly less than 48 degrees in the extreme northern part of the State to slightly more than 56 degrees in the extreme southern and southwestern parts. The northern half being comparatively level, the isotherms are more regular and more nearly parallel there than in the southern half, where the surface is much more broken. The irregularities in the isotherms are attributed chiefly to local causes. The cold area in Henry, Wayne, Rush, Fayette, Randolph, Franklin and Decatur counties is explained by the fact that this section of the State has an altitude of more than 1,000 feet. The highest point in Indiana is 1,285 feet above sea level and is located in the southern part of Randolph County. A further examination of the chart discloses the fact that the Wabash Valley is practically as warm at Terre Haute as it is at the mouth of the Wabash River, a peculiarity attributed to the topography of that section.

However, a discussion of the mean temperature does not necessarily give a true conception of the climate of a State as affected

by the temperature element. Due consideration must be given to the highest and lowest temperatures reached in the locality under discussion. The temperature has a comparatively wide range, as the State of Indiana comes well within the influence of the pronounced cold waves which occasionally sweep down from the northwest over the central valleys. The distance from any large body of water is sufficient to prevent modifying influences from that source in either summer or winter, except over a small area in the extreme northwest corner bordering upon Lake Michigan. The temperature at all stations occasionally rises in summer to 95 degrees or more, but these instances are rare. The hot periods are generally of short duration and interspersed with those of moderate temperatures and cool breezes, which tend to greatly lessen the effect of the summer heat and produce a climate that is delightful rather than oppressive. It frequently occurs that the highest temperature of a season is recorded in the central or northern part, while the lowest is sometimes recorded at a station well toward the southern end of the State. This is due to the fact that the areas of high and low barometric pressure, which produce these extremes of temperature, cross the State with as great frequency over one portion as the other. It may so happen that, during a hot wave, the heat is more intense in the northern half of the State, while on the other hand, a cold wave may be more severely felt in the southern half. It is also true that the records of individual stations are more or less affected by local topographic features. The lowest temperatures reached during a season, or period of years, have a greater effect upon the character of vegetation than do the highest temperatures.

The length of the growing season has a more direct and decisive influence than is exerted by the minimum temperatures. A chart (Plate 4), showing the advance of spring is presented herewith. It will be noted that the average date of last killing frost at Evansville is April 7th. A week later the line has moved northward until it includes the greater part of what is termed "The Pocket" of Indiana. In another week about one-third of the State is included, and week by week the line moves northward until on May 5th there remain only small areas in the northern and eastern parts of the State where there is still a probability that a frost sufficient to kill the staple products of those localities will occur. It may also be observed that the distribution outlined on this chart bears a fairly close resemblance to that shown on the chart of an-

AVERAGE DATE OF FIRST KILLING FROST IN AUTUMN.

Data compiled from all available records of Meteorological stations.



PLATE 5.

nual mean temperature. The cold area in the eastern part of the State, and the warm conditions in the lower half of the Wabash Valley are clearly defined and similarly outlined on both charts.

These areas are also found to be equally well preserved on the chart (Plate 5) of the average date of first killing frost in autumn. There is a striking resemblance between the two frost charts. This illustrates well the fact that the advance of the spring and autumn seasons is regular and, in the same locality, similar climatic influences prevail during both seasons. It will be noted that each chart shows a range of about twenty-eight days between the extreme ends of the State in the average time of occurrence of the first and last killing frost. It is thus shown that, while the district lying along the Ohio River in Indiana has a growing season of practically 200 days, the extreme northern and east-central portions have little more than 140 days. This difference of about eight weeks causes a great diversity in the nature of crops grown in the State.

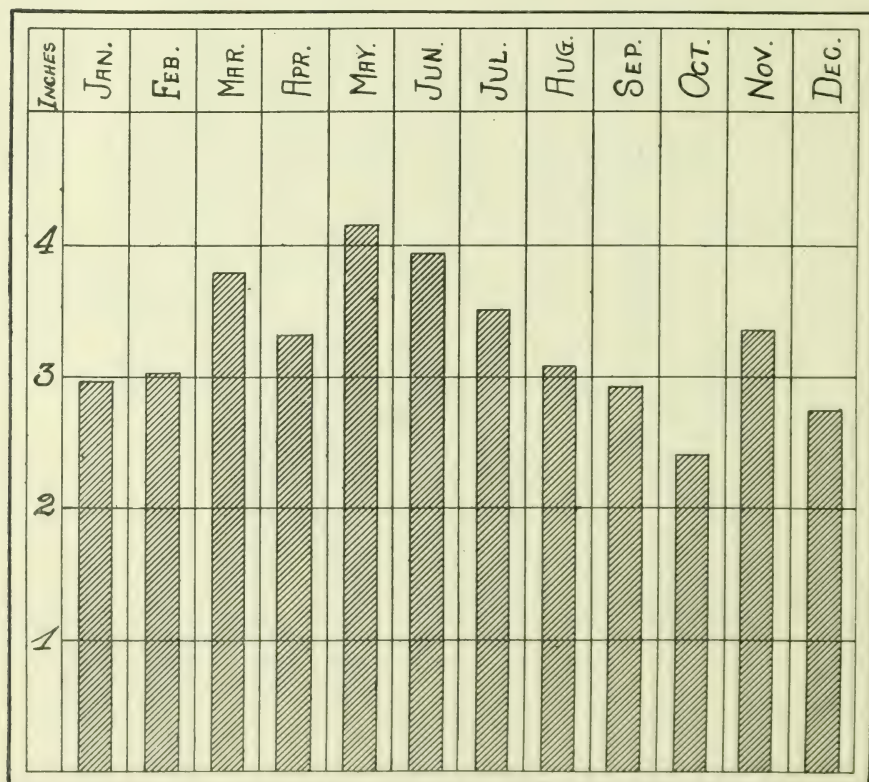


FIG. 1. Average monthly precipitation for Indiana.

The seasonal distribution of rainfall, while important in Indiana as well as elsewhere, is of less significance than in the semi-arid regions of the West, where the total amount for the year is only sufficient for the current needs of vegetation. In Indiana, the normal amount is ample for nature's requirements during all seasons of the year, as is shown by the chart (Fig. 1) on preceding page, which is introduced to illustrate graphically the monthly amounts of rainfall.

The precipitation has a comparatively uniform distribution throughout all months of the year, because the State of Indiana lies within the general storm track, and receives a portion of the moisture from the majority of storms which cross the Ohio Valley and lake region at irregular but frequent intervals. While droughts sometimes occur during the summer months, they are seldom severe enough to cause extensive damage to the staple crops of the locality.

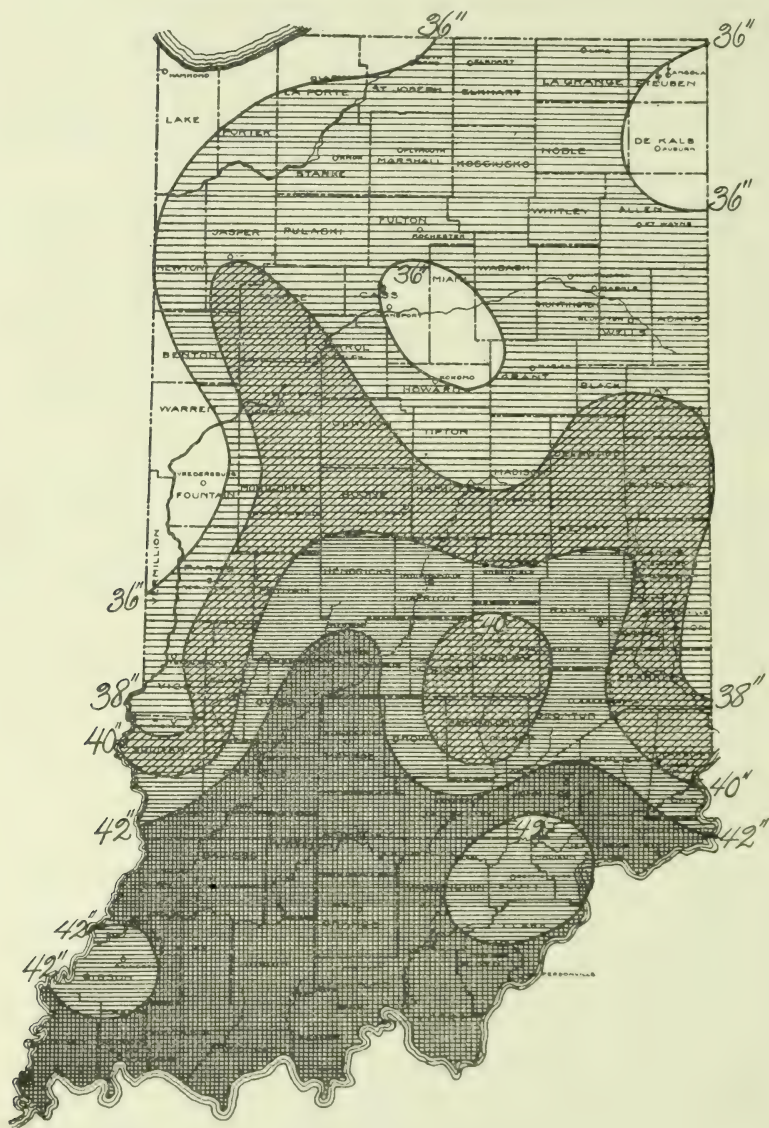
The geographical distribution of rainfall is somewhat variable, as an examination of the accompanying chart (Plate 6) will show. In general there is an increase in amount from north to south. Small areas in the northern half of the State have an average annual amount of less than 36 inches; the remainder of the northern half has from 36 to 40 inches, and the greater part of the southern half has more than 40 inches. About one-third of the State, extending from the Ohio River northward, receives more than 42 inches.

From this it is apparent that the precipitation in all parts of Indiana, during an average year, is ample for all kinds of plant life, and that, from the standpoint of both the temperature and precipitation elements, climatic conditions in Indiana permit an unusual variety in the character of its vegetation.

There is a popular belief that our climate is changing, but a study of all available statistics fails to bear out this opinion. There are short-period variations in temperature and precipitation, and it is possible that there are similar long-period oscillations. It is to be regretted that there are but few reliable records covering a long period of years. Those available show changes from year to year in the temperature and rainfall of the respective places, but there is nothing to indicate that a definite change in climate is actually taking place. They also show that, while the temperature and precipitation elements are above normal in certain years, there are other years when the same elements fall, in varying amounts.

AVERAGE ANNUAL PRECIPITATION.

Data compiled from records of Meteorological stations
established 10 years or more.



SCALE OF SHADES—Inches.

Less than 36. 36 to 38. 38 to 40. 40 to 42. more than 42.

below normal. It is now conceded by scientists that if any long period changes are taking place they are of a secular nature, and, therefore, not to be considered in a discussion of this character.

The following graphic charts (Figs. 2 and 3) represent the mean temperature and annual precipitation, respectively, for the State of Indiana for the twenty-four-year period, 1887 to 1910, inclusive. These records are compiled from all of the observations made during that time at the regular and coöperative stations of the United States Weather Bureau, which are about sixty in number.

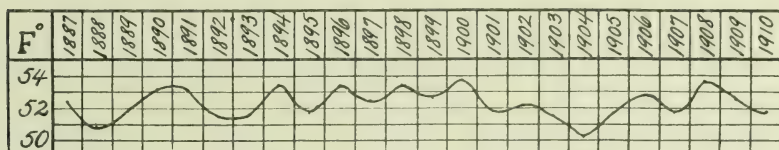


FIG. 2. Mean temperature for Indiana, 1887-1910.

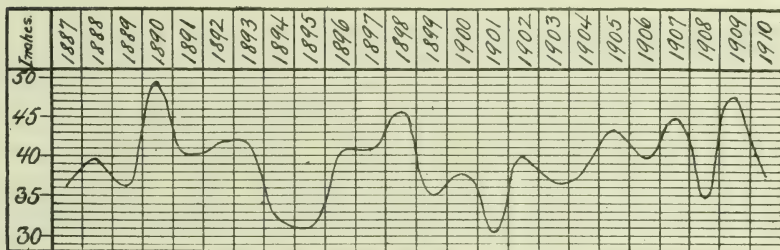


FIG. 3. Average precipitation for Indiana, 1887-1910.

In order to illustrate the regularity of the temperature and rainfall elements during successive periods of years, the following table has been prepared:

	1887-90	1891-95	1896-00	1901-05	1906-10
Mean temperature (° F.)	52.1	52.3	53.1	51.5	52.4
Av. precipitation (inches)	40.38	37.32	39.91	37.75	40.67

This grouping into periods shows that while slight fluctuations in temperature, and considerable ones in precipitation, have taken place during successive periods, there is no permanent increase or decrease indicated, and the variations are irregular as to the time of their occurrence.

The effects of forests upon climate is a subject that has been freely discussed, and various opinions prevail regarding the extent and nature of their influence. Authentic records of observations

made in different parts of the globe extending back for a period of several hundred years would be required to determine this point definitely ; but, unfortunately, such records are lacking. The available data on the subject show that certain local effects are produced by forests, but the temperature and precipitation of a region are not materially influenced or controlled by them. A few records in the United States date back to a time when the country was largely forested, and comparison made between these and records made since the forests were removed, indicate that no important or distinctive changes in temperature or precipitation have taken place as a result of such removal.

Experiments along this line are being conducted jointly by the United States Bureau of Forestry and the United States Weather Bureau. A station has been established at Wagon Wheel Gap, Colorado, for this purpose. Observations are being made in and near certain forested slopes, where, after a number of years have elapsed the forests are to be removed and the observations continued for a similar period of time. Meteorological observations are also being made regularly in some of the other forested sections of the country. It is very probable that the data thus obtained will afford new and valuable information on this important subject.

The precipitation that falls in Indiana, as well as in the other central States, is brought chiefly from the Gulf of Mexico by the southerly winds that attend the passage of large cyclonic areas, which cross the country from west to east at frequent intervals. Very little moisture is brought to this section from the Pacific Ocean, as the moist winds from that body of water give up the greater part of their moisture content by the cooling process involved in crossing the mountain ranges of the western States. This explains the semi-arid condition of the Great Basin and the eastern slope of the Rockies. By similar reasoning, the heavy rainfall on the north Pacific slope during the winter months is produced by the cooling of the moisture-laden winds, which, as they ascend the slopes of that region, must give up a large portion of their moisture. It is evident that the rainfall of a locality may be brought to it over great or short distances, and that the moisture is precipitated by changing temperature conditions regardless of the nature of the surface covering of the earth. In view of this fact, it is only reasonable to believe that the heavy growth of forests in regions of heavy rainfall and their absence in semi-arid regions is the effect rather than the cause of such climatic conditions.

A Preliminary Report of the Wood-Using Industries of Indiana.

F. J. BREEZE, INSTRUCTOR IN FORESTRY, PURDUE UNIVERSITY.

This last year the State Board of Forestry sent out the following questionnaire to the firms engaged in wood-using industries:

PLEASE FILL OUT AND RETURN TO DEPARTMENT OF FORESTRY,
INDIANAPOLIS.

1. Name of firm.
2. Address.
3. Location of industry.
4. When established.
5. Number of persons regularly employed?
6. How many days did your plant run in 1910?
7. Are you able to sell your mill waste, such as sawdust, shavings and slabs?
8. If so, for what purpose?
9. Price received for mill waste?

For Industries that Use Timber from the Woods.

10. Estimate how long it will take before you will have to close or move for want of timber.
11. What per cent. of the timber you use comes from Indiana?
12. What per cent. are you able to get within a radius of 25 miles?
13. What kind of timber do you use?
14. Smallest size of each kind you can use?
15. Price you pay at the mill for the different kinds per thousand feet or per cord?
16. Compare present price with that of 10, 20 and 30 years ago?
17. Give the list of articles you manufacture?
18. State kind and amount of timber used for each?

For Industries that Use Raw Timber, Etc.

19. What products do you manufacture?
20. For the wood products that you manufacture are there substitutes of steel, concrete, paper, etc., offered for sale?
21. Probable effect on the value of your wood products by these substitutes?
22. Remarks on the future of the wood working industries and the timber supply of the State.
23. Shall we enter your name for a copy of our next annual report?

Three hundred and two copies were returned from plants in operation. In most cases, the questions were not all answered, or only partly answered. A large number of concerns, including some of the very largest manufacturing plants, sent in no reports at all. This report, based on these answers, is only preliminary and is of necessity incomplete.

A report based on complete and accurate returns from the wood-using concerns can be of great service to those manufacturers. A careful inventory of our timber resources, together with an accurate knowledge of the conditions existing in the wood-using industries, will enable the manufacturer to pretty accurately forecast future conditions and to plan his business accordingly. The owner of standing timber can learn from such a report the various species of trees which enter into the wood manufactures and thereby know the present market demands and also gain insight into the probable future demands.

This report covers the timber of our own State and that from outside the State which is sawed into lumber and dimension stock or remanufactured within the State into the various wood products. That is, the industries engaged in the sawing of timber from Indiana or of logs shipped from other States, and the industries engaged in the remanufacture of lumber which may come from this State or other States are considered. No account is taken of the large quantity of lumber coming from other States which goes into use directly without further remanufacture, such as lumber and heavy construction timbers. Nor is any account taken of the wood of the State which is used for fuel and posts or sawed into lumber by the hundreds of portable sawmills and used directly upon the farms.

The many wood-using industries may be divided into the following classes:

- (1) Sawmills which produce lumber and dimension stock, the only change in the raw material being that of dissection.

- (2) Industries which remanufacture the lumber in products made wholly of wood, such as planing mill products, furniture and cooperage.

- (3) Industries which combine wood and iron in the manufactured product, the wood being a very important factor, such as vehicles and agricultural implements.

- (4) Industries in which wood does not enter into the finished products, but is used for boxes and crates for the shipment of the products.

In 1900 Indiana reached its highest point in the value of timber and lumber products. According to the industrial reports of the Census Bureau, the decline in value of wood products from 1900 to 1905 was from twenty million dollars to fourteen and one-half million dollars. During that same time, the State fell from the seventh place to the sixteenth place in the production of lumber. In 1905, although the lumber industries were showing a decline, yet in value of products, lumber and its remanufactures were fourth in the list of Indiana industries, being exceeded by (1) food and kindred products, (2) iron and steel and their products and (3) vehicles. At present more than half of the lumber comes from outside of the State, mainly from Kentucky, Tennessee, West Virginia, Arkansas and the Gulf States.

Table showing uses of the different kinds of wood made by Indiana wood-using industries. Out of 302 reporting, 240 named articles manufactured:

ASH.

Agricultural implements,	Tool handles,
Barrels,	Wagon stock,
Furniture,	Vehicle bodies.
Player-pianos,	

BASSWOOD.

Barrel headings,	Furniture,
Boxes,	Player-pianos,
Baskets,	Vehicle bodies.
Caskets, undertakers' supplies,	Veneers.
Excelsior,	

BEECH.

Baskets,	Planing mill products.
Boxes,	Porch furniture.
Children's wagons and sleds,	Slack cooperage.
Dimension stock,	Wagon stock,
Furniture,	Wood plugs,
Lumber,	Washing machines.

BIRCH.

Closet seats.	Pianos,
Furniture,	Planing mill products.

CHESTNUT.

Caskets, coffins,	Pianos.
Furniture,	

CHERRY.

Closet seats.	Planing mill products.
Furniture,	

COTTONWOOD.

Baskets,	Slack cooperage,
Building materials,	Vehicles,
Caskets and shipping boxes,	Vehicle bodies,
Excelsior,	Veneers,
Furniture,	Wagons.
Shipping cases and crates,	

CYPRESS.

Boats,	Planing mill products,
Lumber,	Tanks.

ELM.

Baskets,	Planing mill products,
Boxes,	Railroad stock,
Building materials,	Saddle trees,
Furniture,	Vehicle bodies,
Hoops,	Veneers.
Pianos and organs,	

GUM.

Agricultural implements,	Planing mill products,
Caskets,	Player-pianos,
Children's wagons and sleds,	Saddle trees,
Furniture,	Vehicle bodies and seats,
Headings and staves,	Veneers.
Lumber,	Wagons.

HACKBERRY.

Baskets,	Fruit packages.
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HEMLOCK.

Crating,	Railroad stock.
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HICKORY.

Agricultural implements,	Tool handles,
Baskets,	Toy vehicles,
Car stock,	Vehicles (spokes, poles,
Grain cradles,	shafts),
Porch furniture,	Vehicle stock.
Scythe snaths,	Wagons.

MAHOGANY.

Caskets,	Pianos,
Closet seats,	Planing mill products,
Furniture,	Veneers.

MAPLE.

Baskets,	Interior finish,
Broom handles,	Pianos,
Flooring,	Saddle trees,
Furniture,	Veneers.

OAK.

Agricultural implements.	Kitchen cabinets,
Automobiles,	Pianos,
Barrel headings,	Plow beams and handles,
Baskets,	Pork barrels,
Beds,	Office and bank furniture,
Boats,	Novelty furniture,
Car stock,	Railroad stock,
Caskets and shipping boxes,	Railroad ties,
Chairs and rockers,	Tables,
Chiffoniers,	Telephone cabinets,
Closet seats,	Vehicles,
Desks,	Veneers,
Dining room furniture,	Wagon stock,
Doors,	Wardrobes,
Dressers,	Wheels for agricultural implements,
Interior trim,	Whiskey barrels.
Ladders,	

RED CEDAR.

Caskets,	Posts.
Cedar chests,	

SPRUCE.

Pianos and organs.

SYCAMORE.

Baskets,	Lumber,
Dimension stock,	Planing mill products,
Furniture,	Slack cooperage.

TAMARACK.

Cigar boxes.

WALNUT.

Furniture,	Planing mill products,
Lumber,	Veneers.
Pianos and organs.	

WHITE PINE.

Boxes,	Furniture,
Burial boxes,	Pianos.

YELLOW PINE.

Agricultural implements,	Furniture,
Boxes and crates,	Planing mill products.
Dimension stock,	

YELLOW POPLAR.

Building material,	Saddle trees,
Caskets and shipping boxes,	Vehicle bodies,
Furniture,	Veneers.
Pianos,	

PRICES.

Very few of the reports indicated the prices paid for the different kinds of wood, so that the following figures are not entirely reliable. However, the prices are suggestive:

<i>Kind of Wood.</i>	<i>Prices per 1,000 Bd. ft.</i>
Apple	\$100 00
Basswood	20 00
Beech	12 00
Cedar	50 00
Cherry	27 50
Chestnut	19 00
Cottonwood	27 00
Elm	18 00
Gum	12 00
Hemlock	16 50
Hickory	30 00
Mahogany	107 00
Maple	16 00
Oak	30 00
Oak, quartered	62 00
Pine	23 00
Red gum	30 00
Sycamore	15 00
Walnut	36 00
Yellow poplar	27 00

TABLES SHOWING SOURCES OF LUMBER.

(232 Concerns Reporting.)

The list indicates the kinds of industries and the number of each.

Industries Using 75 Per Cent. or More From Indiana.

Baskets, 3; excelsior, 1; furniture, 12; hubs and rims, 1; novelties, 2; plow handles, crates, porch furniture, 1; saddle trees, 4; saw lumber and dimension stock, 61; slack cooperage, 6; sled runners, bows, boxes, 1; spokes and hubs, 1; store fixtures, 1; tight cooperage, 1; tool handles, 6; veneers, 3; wagons, 3; washing machines, 1. Total, 108.

Industries Using From 50 Per Cent. to 75 Per cent. From Indiana.

Furniture, 3; extension tables, 1; handles, 1; lumber, 1; lumber and planing mill products, 1; pianos, 1; spokes and scythe snaths, 1; vehicles, 1; veneers, 1; wagons, 2. Total, 13.

Industries Using From 25 Per Cent. to 50 Per Cent. From Indiana.

Agricultural implements, 1; bowling alleys, 1; chairs, 2; crates, 1; excelsior, 1; flooring, 2; furniture, 1; handles, 3; hoops, 1; light vehicles, 1; lumber and veneer, 2; pianos, 1; posts, 1; staves and heading, 1; store, office and bank fixtures, 1; toys, 1; veneer, 1; wagons and hubs, 1. Total, 23.

Industries Using From 1 Per Cent. to 25 Per Cent. From Indiana.

Baskets, 1; boats, 1; boxes and cooperage, 2; brooms and mops, 1; caskets and coffins, 3; cooperage and woodenware, 1; crating and boxes, 4; furniture, 22; lawn furniture, 1; lumber, 6; lumber and planing mill products, 1; pianos, 2; planing mill products, 1; porch furniture, 1; toys, 1; school desks, 1; veneers, 3; wagons, 1; wood turnings, etc., 1. Total, 56.

Industries Using No Lumber From Indiana.

Brooms, 1; butter packages, 1; caskets, 5; cedar chests and boxes, 1; children's wagons and sleds, 1; cigar boxes, 1; closet seats, 1; furniture, 3; interior trim, 1; lumber, 3; lumber and dimension stock, 1; office furniture, 1; packing boxes, 1; plows, 1; porch columns, 1; sash and frames, 1; shipping cases, 1; trunks, 1; vehicle stock, 3; veneer, 1; wheels, 1; whisky barrels, 2. Total, 33.

Although the great centers of lumbering are somewhat remote from Indiana, yet it is probable that a large number of wood-using industries will always remain in the State. Many kinds of wood industries will always keep closer to areas of dense population than to the great lumbering regions, for extensive forest regions cannot have a dense population. In the case of furniture-making it will doubtless be more profitable to keep the factories near the markets and transportation lines, and ship in the logs or dimension stock from the lumbering regions.

Indiana is a broad gateway between the East and West and through this wide opening between the Ohio River and Lake Michigan the great continental railroads must pass. With large forest areas to the north and south of us, this State will always have a large number of wood-using industries which must be near great population centers and transportation lines.

Indianapolis, with its railroad facilities and abundant labor and capital, is the leading Indiana center of wood-using industries. This city is one of the great veneering centers of the United States. Evansville is advantageously situated for wood-using industries.

Located on the Ohio River, it stands almost at the gateway of the hardwood region of Kentucky, Tennessee and West Virginia.

If a more complete study of the wood-using industries of Indiana is to be made by the State Board of Forestry for the use and benefit of the people of this State, and especially for the manufacturers of wood products, it certainly must be urged that more complete answers be given to the questions which are sent to the wood-using industries. Reports not complete nor accurate can be of only doubtful value. If each concern will make a full and correct statement, a study and report can be made by the State Board of Forestry which will be of great use to the wood-using industries and to the producers of wood.

The Rate of Growth of Certain Species of Native Trees of the State Reservation.

BY STANLEY COULTER, PH.D., DEAN OF SCHOOL OF SCIENCE, DIRECTOR
OF LABORATORY, PURDUE UNIVERSITY.

A fairly accurate knowledge of the rate of growth of the different species of trees used in the industries is evidently a matter of extreme importance. "The very existence of a problem of forest conservation is dependent upon the question of timber production. If production falls below consumption at present or threatens to in the future the problem is very real. If the production exceeds consumption there is obviously no problem of conservation to solve."¹

It is also clear that upon a knowledge of the growth-rate of trees must depend the correct answer to the oft-repeated question concerning the time necessary to bring certain species to marketable size. The whole question of the economic possibilities in the reforestation of denuded areas, of the returns to be expected in the shorter rotations for the production of post and tie stuff depends upon our knowledge of the growth rate of the forms with which we are dealing.

So many factors enter in the determination of the rate of tree growth that studies of this nature must be regional. The results are necessarily of fairly limited application. Some of the factors determining tree growth are composition and strength of soil, its porosity, the soil moisture, the exposure to light, the topography and the climate. It is evident that conclusions drawn from a study of tree growth in New York or Arkansas might not, indeed almost certainly would not, be correct for Indiana.

Before further intelligent progress could be hoped for in forestal enterprises in the State it was necessary that accurate data bearing upon this question should be collected. Studies in the rate of growth of various tree species had previously been made by Ziegler² and the approximate rate of growth given for the north-

¹ Ziegler, E. A. Rate of Forest Growth. Report of The National Conservation Commission. Vol. 2, p. 203, l. 909.

² Ziegler, E. A., loc. cit.

ern forests, the central hardwood forests, the southern forests, the Rocky Mountain forests and the Pacific Coast forests. A reference to the tables in that report will show that the results obtained in the studies set out in the present paper are in substantial agreement with his conclusions.

In undertaking this study it was assumed that only those portions of the State which are untillable could be profitably devoted to timber production. True conservation consists in using every natural resource in the line of its highest value. In Indiana agricultural areas should, therefore, be devoted to agriculture and only those regions unfit for this devoted to forestry. In the main these regions lie in the southern counties of the State and more especially in what is known as the "Knobs."

The material for the first series of studies was collected from the State Forest Reserve in Clark County. The reserve embraces 2,000 acres and may be taken as fairly representative of ecological conditions prevalent over wide areas in our southern counties.

The topography is broken, with elevations ranging from 500 feet above sea-level to 1,000 feet above sea-level. The soil of the tract varies from a loose to a compact clay. Though receiving the average amount of rainfall, the soil is usually hard and dry, not only because of the character of the soil, but also because of the quick run-off. The land is practically untillable, a statement verified by the fact that the tract was purchased for eight (\$8) dollars an acre. The timber to meet the future demands in Indian must, in the main, be taken from this region, which is sufficient reason for beginning these studies upon material collected at the State Forest Reserve.

The sections were taken from trees whose diameters were as near 12 inches, breast high ($4\frac{1}{2}$ feet), as could be secured. This size was chosen because at that diameter a tree is not only fit for firewood, poles and posts, but will also furnish a fairly good grade of lumber. Lumbermen, indeed, almost invariably cut below this diameter. Under present conditions trees from 12 to 16 inches in diameter may be classed as "saw-timber." It is evident that the time required to produce posts, tie, pole and firewood material can be determined as well as the time to produce first-grade timber.

The species selected for the study were the following:

Scrub or Jersey pine (*Pinus virginiana* Miller).

Black walnut (*Juglans nigra* L.).

Black or pignut hickory (*Hicoria glabra* (Miller) Britton).

Shellback hickory (*Hicoria ovata* (Miller) Britton).

Birch (*Betula nigra* L.).

Beech (*Fagus grandifolia* Ehrhart).

Chestnut (*Castanea dentata* (Marshall) Borkh.).

White oak (*Quercus alba* L.).

Scarlet oak (*Quercus coccinea* Muench.).

Chestnut oak (*Quercus Prinus* L.).

Red oak (*Quercus rubra* L.).

Black oak (*Quercus velutina* Lamarek).

White elm (*Ulmus americana* L.).

Yellow poplar (*Liriodendron Tulipifera* L.).

Red or sweet gum (*Liquidambar Styraciflua* L.).

Sycamore (*Platanus occidentalis* L.).

Black or sour gum (*Nyssa sylvatica* Marshall).

White ash (*Fraxinus americana* L.).

Ten trees of each of the above species were cut and a disk four inches thick was taken from a point $4\frac{1}{2}$ feet above the ground. Credit should be given to Mr. Ambrose Waltman, custodian of the State Forest Reserve, for his skillful selection of the individual trees for cutting and his careful preparation of the disks for the studies. The individual trees were selected from different exposures, different elevations and different soils where it was possible, in order to secure average conditions as nearly as might be.

The following record was made for each specimen, the sheet being taken at random:

TREE NUMBER 48.

Species.—Shellbark Hickory.

Character of Soil.—Sandy loam.

Depth of Soil.—About four feet deep with shale bottom.

Exposure.—In ravine.

Associate Trees Within a Radius of Fifty Feet; Arranged in Order of Abundance.—1 black oak, 3 white oaks, 1 ash, 3 shellbark hickories.

The Size of Associate Trees.— $3/7$ inches; $3/10$ inches; $1/14$ inches; $1/16$ inches.

Total Height of Tree.—Seventy-nine feet.

Diameter at $4\frac{1}{2}$ feet, 12.2 inches; $8\frac{1}{2}$ feet, 12.2 inches; $12\frac{1}{2}$ feet, 12.1 inches; $16\frac{1}{2}$ feet, 12 inches; $20\frac{1}{2}$ feet, 11.9 inches; $24\frac{1}{2}$ feet, 10.9 inches.

Length to Main Branch.— 44 feet, 6 inches.

Length of Clear Bole.—20 feet, 6 inches.

Width of Crown.—25 feet.

It was impossible because of press of other duties to consider all of the data included with sufficient care to justify conclusions which would be at all suggestive. It is fairly certain that on such a limited tract soil differences are not sufficiently marked to seriously affect the rate of tree growth. The indications are that under such conditions soil moisture and exposure are factors securing the most evident response. The data, however, are too meager to warrant any definite statements as to their effect.

The determination of the age of the specimen was by the familiar annual ring method. Evidently by counting these rings and adding the time necessary for the tree to reach the height from which the section was taken, the age of the tree from which the specimen was cut can be obtained. Before counting the annual rings several (usually four or five) diameter measurements were taken. The results of these measurements were then averaged and the resultant taken as the true diameter of the section. A place on the disk was then found having the average diameter. The rings were then counted in groups of ten years, the limit of each group being marked on a line of the radius. The decades were then measured and tabulated in order of age with the growth for the decade. The measurements are accurate to one-tenth of an inch. Each of the ten specimens of the eighteen species was thus measured and tabulated under its species heading.

These measurements were made under my supervision at the Forestry Laboratory at Purdue University by Messrs. C. J. Taylor and W. P. Brodie of the class of 1911. They were made with extreme care and at my suggestion many of them were later repeated in order that no question might arise as to the accuracy of the measurements. Without the skillful and intelligent work of these young men this paper would not have been possible at the present time.

These tabulations were made the basis of a series of curves which showed graphically the rate of growth of the species studied. From this series of curves the conclusions drawn in this paper are derived.

The work of Messrs. Taylor and Brodie indicate the following results by species:

Birch.—The average rate of growth in the material examined was .1 inch per year, the period of most rapid and uniform growth being from the tenth to the seventieth year. The taper is 2.2 inches for every ten feet. In the specimens examined no absolute conclusion can be drawn as to the age at which profitable growth ceases, although a study of the curve would indicate it to be at about the one hundred twenty-fifth year.

Chestnut.—The average growth rate is .2 inch per year, the period of most rapid growth being from the tenth to the fiftieth year, although in some specimens the growth becomes less as early as the thirtieth year. The taper is 1.4 inches for each ten feet.

Beech.—The beech grows extremely slowly, showing an average in the specimens studied of only .07 of an inch per year. Its period of most rapid growth is from the first decade to the fourteenth and apparently profitable growth ceases at approximately one hundred eighty years. The taper is 1.2 inches for each ten feet.

White Ash.—The white ash shows an average growth rate of .1 of an inch per year, the period of rapid growth being from the tenth to the sixtieth year. At sixty years the annual growth rate decreases and profitable growth ceases at approximately ninety years. White ash has a taper of 1.6 inches for each ten feet.

Black or Pignut Hickory.—This species in the region under consideration is an extremely slow grower, showing an annual growth rate of only .08 of an inch. Its growth is very uniform, although in the specimens studied its most rapid growth seemed to take place between the one hundredth and one hundred thirtieth years. It is probable from an examination of the curve that profitable growth ceases at about one hundred fifty years. The taper is 1.2 inches for each ten feet.

Shellbark Hickory.—This species shows an annual growth of .05 of an inch. Its growth is quite uniform, being perhaps slightly more rapid between the seventieth and the one hundred twentieth years. Profitable growth ceases at about the close of this period of rapid growth. The taper is 1.2 inches for each ten feet.

Black Walnut.—This species shows an annual growth rate of .16 of an inch. The growth is uniform up to the fortieth year, the period of most rapid growth being from the tenth to the fortieth

years. After the eightieth year its growth rate decreases sharply and profitable growth would cease at approximately one hundred to one hundred and twenty-five years. The taper of walnut is 1.6 inch for each ten feet.

Red or Sweet Gum.—The annual growth rate of this species is .12 of an inch. The growth is uniform and rapid up to about the seventieth year. At about one hundred years the growth rate decreases so sharply as to make it fairly certain that under the conditions existing at the State Forest Reserve profitable growth would end at that age. The taper is 1.6 of an inch for each ten feet..

Yellow Poplar or Tulip Tree.—This species shows an annual growth rate of .22 of an inch. The rate of growth is uniform and rapid from the tenth to the fortieth year. Profitable growth does not cease until about the one hundredth year. The taper is 1.2 inches for each ten feet.

Black or Sour Gum.—This is another slow growing species, showing an average annual growth rate of .08 of an inch. Its growth is uniform from the tenth to the one hundred and twentieth year and its profitable growth apparently continues far beyond that time. The taper is 1.2 inches for each ten feet.

Scrub or Jersey Pine.—This species shows an average annual growth rate of .16 of an inch. The growth is uniform up to the fortieth year, at which time the annual increment decreases. The period of most rapid growth is from the tenth to the fortieth years. While these pines attain considerable size on the "Knobs" the large trees are almost invariably "doty" at the base, so that the species, in spite of its apparent promise, is not an especially desirable one to plant or encourage. The taper is .4 of an inch for each ten feet.

Sycamore.—The sycamore shows an average annual growth rate of .2 of an inch. The most rapid and uniform growth is from the tenth to the fortieth year. After the sixtieth year the annual growth rate decreases rapidly. The taper is 1.2 inches for each ten feet.

White Oak.—White oak shows an annual growth rate of .08 of an inch. The period of the most uniform and rapid growth is from the twentieth to the one hundredth years. The curves derived from the specimens studied do not indicate at what time profitable growth ceases. The taper is 1.6 inches for each ten feet.

Scarlet Oak.—The average annual growth rate of this species is .15 of an inch. The growth is uniform and rapid from the tenth to the eightieth years. Its profitable increase continues far beyond this period, although even its approximate limit cannot be given from the data in hand. The taper is 1.4 inches for each ten feet.

Chestnut Oak.—This species shows an average annual diameter increase of .14 of an inch. The most rapid growth is from the tenth to the seventieth years. Growth ceases to be profitable at approximately one hundred years. The taper is 1.6 inches for each ten feet.

Red Oak.—The average annual growth rate of red oak is .13 of an inch. The period of most rapid growth is from the tenth to the sixtieth years. The specimens examined showed a period of exceptionally rapid growth between the fiftieth and sixtieth years. Profitable growth ceases at approximately one hundred and twenty years. The taper is 1.8 inches for each ten feet.

Black Oak.—This species of oak shows an average annual growth rate of .16 of an inch, with the period of most rapid growth between the twentieth and seventieth years. Profitable increase apparently ceases at about one hundred years. The taper is 1.6 inches for each ten feet.

White Elm.—The white elm shows an average annual growth rate of .16 of an inch. The time of most rapid and uniform growth is from the tenth to the fiftieth years. After the fiftieth year growth is extremely slow. The taper is 2.4 inches for each ten feet.

It was assumed that to reach a height of four and one-half feet would require five years, so that in each case five was added to the number of rings counted. Great care was used to avoid including the so-called "false rings" in the count and as such rings are fairly easily recognized it is believed that this source of error has been eliminated. In cases where the rings were very narrow and not sharply distinct, they were brought out by using phloroglucin and sulphuric acid. Finally, as each disk had its number and datum sheet, it was a simple matter to check back in cases where the measurements seemed doubtful. The curves of growth are not included in this report, because few persons have had sufficient practice to interpret them correctly. Both the disks and these

curve-plats are on deposit at the Forest Laboratory of Purdue University and may be examined by any one interested in the question of tree-growth.

It is to be remembered that the results of these measurements hold only for the region studied or for regions having similar ecological conditions. Doubtless in the southwestern counties, with their deep and rich alluvial soil, the growth would be found to be very much more rapid. It will be observed also that for several of the species the conditions obtaining at the reserve are distinctly unfavorable. The hard, compact, dry soil would without question greatly lessen the growth rate of such species as sweet gum, black walnut and sycamore, trees which find the conditions of maximum development in rich, deep, loose and moist alluvial soils.

Taking all of these matters into consideration, however, we are forced to the conclusion that the production of timber material takes not merely care and skill, but *time*, and that the time required is much longer than is usually thought and evidently very much longer than the average tree agent states. While the number of trees examined under each species is far too few to warrant definite conclusions, no doubt exists in my own mind that the results obtained are fairly indicative of forestal probabilities and possibilities in such regions as those under consideration. As it is from just such regions that the future timber supply must come, the significance of these conclusions becomes evident.

It is evident that some of the species indicated have a possible utilization before they reach a diameter of twelve inches. Every forest which gives the maximum returns requires "thinning" from time to time in order that the trees which are to remain until they reach "saw-timber" size may have room for growth. The utilization of these thinning cuttings is therefore a question of great importance in forest management. At a diameter of six inches certain species have a value as posts; at eight inches many species have a fair value for handles, pulp, spools, props, and fuel; at eleven inches, under present methods "tie" size is reached. It follows that many species which it would not be profitable to bring to saw-timber size, might be very promising as furnishing material for the products where a less diameter is required. Table I attempts to place these facts in such form as to be readily understood.

TABLE I.

SPECIES.	Average Diameter. Six Inches. (Posts.) Years.	Ave. Diameter Eight Inches. (Handle, Ex- tract, Pulp, Spools, Props, Fuel Wood.) Years.	Ave. Diameter Twelve Inches. (Ties, Poles, Saw-timber). Years.
Birch.....	48	60	100
Chestnut.....	29	42	60
Beech.....	75	100	150
White ash.....	44	70	110
Black hickory.....	95	120	150
Shellbark hickory.....	100	150	210
Black walnut.....	32	45	70
Yellow poplar.....	28	38	60
Red or sweet gum.....	48	60	100
Black or sour gum.....	74	100	150
Scrub pine.....	25	35	80
Sycamore.....	60	70	94
White oak.....	60	80	120
Scarlet oak.....	42	54	80
Chestnut oak.....	41	52	80
Red oak.....	48	58	84
Black oak.....	44	57	73
White elm.....	27	35	56

These figures, it must be borne in mind, are based in each case upon an examination of only ten specimens and are to be regarded as indicative rather than as absolute statements as to the exact number of years required to reach the diameter mentioned. The figures represent the average growth rate of ten individual trees of each species under the conditions described earlier in the paper. For such regions there is little doubt that the shellbark and black or pignut hickories are the most slowly growing forms, while the scrub pine, chestnut, yellow poplar, black walnut and white ash are those which under the conditions named show the most rapid growth. It is probable also that the ratio existing between these growth rates is expressed with practical accuracy in the results given.

It is beyond question that under proper management the diameters named would be attained in a much shorter time. In a strong, loose, properly drained soil, with proper management the time required would be very greatly reduced. This conclusion is borne out by the results obtained in the experimental plats at the Forest Reserve. An examination of the reports of the Secretary upon these plats is sufficient justification for this conclusion. A study of Table 1 will indicate promising species for post stuff, for handles, pulp, props, fuel wood, and ties. These species may well be encouraged and given the care necessary to secure their most rapid growth.

Even taking into consideration all of the factors involved, the fact remains that individual peculiarities of growth, in the limited number of specimens examined under each species, may in some cases have modified the results to such an extent that the figures given do not express the true average annual growth rate. This variance in growth rate in different individuals of the same species under practically identical conditions is shown in Table II, modified from that prepared by Messrs. Taylor and Brodie.

TABLE II.

SHORTEST TIME IN WHICH INDIVIDUAL TREES REACHED A DIAMETER OF SIX INCHES AND OF TWELVE INCHES.

SPECIES.	Six Inch Diameter Shortest Time.	Six Inch Diameter Average From Table I.	Twelve Inch Diameter Shortest Time.	Twelve Inch Diameter Average From Table I.
	Years.	Years.	Years.	Years.
Birch.....	38	48	70	100
Chestnut.....	18	29	38	60
Beech.....	60	75	90	150
White ash.....	28	44	58	110
Black hickory.....	75	95	130	150
Shellbark hickory.....	80	100	150	210
Black walnut.....	22	32	40	70
Sweet gum.....	40	48	62	100
Yellow poplar.....	18	28	40	60
Black or sour gum.....	54	74	120	150
Scrub or Jersey pine.....	20	25	40	80
Sycamore.....	16	60	30	94
White oak.....	45	60	70	120
Scarlet oak.....	28	42	55	80
Chestnut oak.....	31	41	50	80
Black oak.....	34	44	50	73
White elm.....	19	27	32	56

These variations in growth rate show conclusively that the figures given are relative and not absolute and that they will probably require modification upon the examination of a larger number of specimens. There is also the suggestion to be drawn from this table that in the reinforcement of existing woodlots or in the reforestation of denuded areas only seed coming from rapidly growing trees should be utilized. This is especially important in the work of reinforcing existing wooded areas if satisfactory financial returns are secured. The solution of the problem of the timber supply in Indiana lies largely in the hands of woodlot owners. If the woodlots are made to carry their full load of such species as will come to marketable size within a reasonable time, the problem is practically solved. From tables one and two data can be secured which will make it possible to undertake this reinforcement in an intelligent way and with every assurance of success.

A further study of the data reveals the fact that the form of trees studied is not good. The clear bole is not as long as it should be and the taper is too great. In all probability the failure of the trees to develop a clean bole is largely due to the fact that the land is not carrying its full load of trees in consequence of which the branches have not been naturally pruned. It is possible, also, that in some limited areas this condition has arisen from the fact that the soil was not strong enough to carry a sufficient number of trees to insure good form.

This condition is shown by the following tables of species covering length of clear bole, height to main branch and total height.

BIRCH.

<i>Tree No.</i>	<i>Length of clear Bole.</i>	<i>Height to main branch.</i>	<i>Total height of tree.</i>
61	16 feet 6 inches	22 feet	60 feet
64	16 feet	24 feet	52 feet 6 inches
65	16 feet 6 inches	20 feet 9 inches	60 feet
70	12 feet 6 inches	20 feet	64 feet
71	20 feet 6 inches	32 feet	65 feet
75	24 feet	25 feet	60 feet 6 inches
74	12 feet	13 feet 6 inches	56 feet
91	17 feet 6 inches	17 feet 6 inches	61 feet
98	20 feet	21 feet	60 feet
99	12 feet	15 feet	56 feet 9 inches

CHESTNUT.

101	12 feet 6 inches	14 feet	52 feet
118	20 feet 6 inches	24 feet	68 feet
126	10 feet 6 inches	11 feet	68 feet
131	16 feet 6 inches	20 feet	56 feet
132	16 feet	17 feet	60 feet
133	16 feet 6 inches	20 feet	58 feet
137	18 feet	20 feet	56 feet
157	24 feet	32 feet	68 feet
158	16 feet	20 feet	58 feet
159	10 feet	14 feet 6 inches	52 feet

BEECH.

7	16 feet 6 inches	18 feet	60 feet 4 inches
117	8 feet 6 inches	12 feet	68 feet
122	24 feet	40 feet	92 feet
125	12 feet	20 feet	60 feet
130	12 feet 6 inches	16 feet	66 feet
136	12 feet	14 feet	72 feet
138	8 feet	16 feet	68 feet
139	10 feet	20 feet	56 feet
140	9 feet	20 feet	58 feet
141	12 feet 6 inches	24 feet	60 feet

WHITE ASH.

<i>Tree No.</i>	<i>Length of clear Bole.</i>	<i>Height to main branch.</i>	<i>Total height of tree.</i>
22	22 feet	22 feet 9 inches	69 feet
47	20 feet 9 inches	28 feet 6 inches	58 feet 6 inches
62	20 feet 6 inches	34 feet	62 feet
83	16 feet	22 feet	54 feet
87	13 feet	24 feet	59 feet
109	20 feet	20 feet	68 feet 6 inches
119	32 feet	45 feet	72 feet 6 inches
121	28 feet 6 inches	32 feet	80 feet
127	24 feet	26 feet	68 feet 6 inches
161	13 feet	14 feet	58 feet

BLACK OR PIGNUT HICKORY.

10	16 feet 10 inches	27 feet 9 inches	52 feet 6 inches
17	19 feet	23 feet	72 feet
41	16 feet 6 inches	20 feet 6 inches	72 feet
44	16 feet 6 inches	22 feet	58 feet 9 inches
55	16 feet 9 inches	32 feet	78 feet 6 inches
81	20 feet	32 feet	80 feet
107	28 feet	44 feet 6 inches	80 feet
146	28 feet	45 feet	64 feet
147	16 feet 6 inches	24 feet	72 feet
148	20 feet	32 feet	68 feet

SHELLBARK HICKORY.

15	17 feet	29 feet	69 feet
57	12 feet 9 inches	30 feet	80 feet 6 inches
58	20 feet 6 inches	23 feet	76 feet 9 inches
63	20 feet 6 inches	36 feet	69 feet
66	12 feet 6 inches	32 feet	62 feet 6 inches
142	12 feet	28 feet	72 feet
143	20 feet	28 feet	64 feet
144	20 feet	28 feet	72 feet
145	20 feet 6 inches	32 feet	62 feet

BLACK WALNUT.

115	32 feet 6 inches	32 feet 6 inches	72 feet
123	20 feet 6 inches	34 feet	80 feet
124	24 feet	34 feet	72 feet
135	20 feet	22 feet	68 feet
163	42 feet	44 feet	86 feet
162	30 feet	32 feet	80 feet
176	12 feet	32 feet	48 feet
178	12 feet 6 inches	13 feet	44 feet 6 inches
179	8 feet	8 feet	40 feet
180	10 feet	10 feet	48 feet

RED OR SWEET GUM.

<i>Tree No.</i>	<i>Length of clear Bole.</i>	<i>Height to main branch.</i>	<i>Total height of tree.</i>
13	31 feet	34 feet 8 inches	68 feet
14	22 feet	24 feet	66 feet
19	27 feet 6 inches	46 feet	82 feet
84	12 feet 6 inches	15 feet	57 feet
89	13 feet 6 inches	18 feet	65 feet
102	8 feet	9 feet	60 feet
148	28 feet 6 inches	32 feet	60 feet
149	32 feet	44 feet	72 feet
150	20 feet	45 feet	80 feet
153	16 feet	24 feet	64 feet

YELLOW POPLAR OR TULIP TREE.

32	12 feet 6 inches	21 feet	62 feet
82	8 feet	26 feet	64 feet
108	28 feet	42 feet	76 feet
113	20 feet	24 feet	70 feet
115	45 feet	47 feet	89 feet
116	28 feet	45 feet	84 feet
120	32 feet 6 inches	49 feet	88 feet
128	20 feet	30 feet	69 feet
129	24 feet 6 inches	36 feet	78 feet
154	28 feet	32 feet	72 feet

BLACK OR SOUR GUM.

4	30 feet 6 inches	30 feet 6 inches	67 feet 4 inches
5	38 feet	38 feet	68 feet 8 inches
23	25 feet 6 inches	35 feet	61 feet
56	24 feet	30 feet	67 feet 6 inches
68	20 feet 6 inches	28 feet	60 feet
77	27 feet	27 feet	68 feet
88	24 feet 6 inches	36 feet	62 feet
105	24 feet	25 feet 6 inches	68 feet
134	24 feet	25 feet	76 feet
152	28 feet 6 inches	32 feet	62 feet

SCRUB OR JERSEY PINE.

25	17 feet 9 inches	28 feet	62 feet
26	20 feet 9 inches	36 feet	63 feet 6 inches
27	17 feet 6 inches	28 feet	62 feet
28	22 feet	38 feet	65 feet
51	8 feet 9 inches	9 feet	53 feet 6 inches
52	9 feet	10 feet	54 feet 9 inches
53	12 feet 9 inches	16 feet	51 feet 6 inches
60	16 feet 9 inches	20 feet	52 feet 6 inches
90	12 feet	13 feet	54 feet 6 inches
92	9 feet	10 feet	48 feet 6 inches

SYCAMORE.

<i>Tree No.</i>	<i>Length of clear Bole.</i>	<i>Height to main branch.</i>	<i>Total height of tree.</i>
31	15 feet 8 inches	22 feet	65 feet
73	20 feet	30 feet	61 feet 6 inches
74	20 feet	45 feet	68 feet 6 inches
78	17 feet 9 inches	30 feet	64 feet
94	12 feet	16 feet	64 feet
164	28 feet	40 feet	76 feet
166	12 feet	16 feet	64 feet
167	20 feet	24 feet	64 feet
171	12 feet	14 feet	60 feet
172	8 feet	8 feet	60 feet

WHITE OAK.

6	12 feet 6 inches	14 feet	62 feet 6 inches
8	25 feet 6 inches	27 feet 6 inches	69 feet 6 inches
9	12 feet 6 inches	15 feet	57 feet
24	20 feet 6 inches	31 feet 6 inches	65 feet
36	8 feet 6 inches	22 feet	64 feet 9 inches
49	16 feet 9 inches	23 feet	60 feet 6 inches
69	16 feet 6 inches	24 feet	63 feet
85	14 feet	16 feet 6 inches	54 feet 6 inches
106	20 feet	20 feet	68 feet 6 inches
111	24 feet 6 inches	27 feet	62 feet

SCARLET OAK.

1	27 feet 6 inches	30 feet	64 feet 5 inches
29	16 feet 8 inches	22 feet	72 feet
30	25 feet	35 feet	72 feet
34	8 feet 9 inches	30 feet	64 feet 9 inches
39	20 feet 6 inches	28 feet 6 inches	66 feet
54	16 feet 9 inches	24 feet	64 feet 6 inches
67	16 feet 6 inches	26 feet	61 feet
103	20 feet 6 inches	22 feet	70 feet
110	28 feet	40 feet	76 feet
112	16 feet 6 inches	30 feet	68 feet

CHESTNUT OAK.

11	18 feet 9 inches	20 feet	69 feet 9 inches
12	22 feet	23 feet 6 inches	64 feet
16	21 feet 3 inches	28 feet	66 feet
33	16 feet 6 inches	18 feet	60 feet 6 inches
38	18 feet 6 inches	18 feet 6 inches	61 feet 6 inches
45	12 feet 6 inches	18 feet	51 feet 6 inches
46	12 feet 6 inches	13 feet	66 feet 9 inches
151	16 feet 6 inches	19 feet	58 feet
155	20 feet	24 feet	68 feet
156	20 feet	32 feet	68 feet

RED OAK.

<i>Tree No.</i>	<i>Length of clear Bole.</i>	<i>Height to main branch.</i>	<i>Total height of tree.</i>
18	26 feet	26 feet	65 feet
20	21 feet	41 feet	75 feet
42	12 feet 6 inches	30 feet	58 feet
43	16 feet 6 inches	24 feet 9 inches	58 feet 6 inches
59	16 feet 9 inches	18 feet	56 feet 6 inches
72	8 feet 6 inches	12 feet	56 feet
76	18 feet	22 feet	60 feet
86	20 feet 6 inches	24 feet	62 feet 9 inches
93	12 feet 6 inches	14 feet	60 feet
95	12 feet 6 inches	14 feet	57 feet

BLACK OAK.

2	16 feet 10 inches	18 feet	64 feet 9 inches
3	27 feet 6 inches	27 feet 6 inches	80 feet 7 inches
21	25 feet	41 feet	73 feet 6 inches
35	16 feet 6 inches	28 feet 6 inches	64 feet 9 inches
37	13 feet	19 feet 6 inches	62 feet 8 inches
40	16 feet 6 inches	36 feet	68 feet 6 inches
50	16 feet 8 inches	24 feet 6 inches	56 feet 9 inches
80	20 feet 6 inches	23 feet	68 feet
100	16 feet 6 inches	24 feet	60 feet
104	24 feet 6 inches	29 feet	69 feet

WHITE ELM.

96	12 feet	12 feet	56 feet
97	6 feet	6 feet	53 feet
165	16 feet	18 feet	69 feet
168	12 feet	12 feet	56 feet
169	20 feet	24 feet	60 feet
170	16 feet	16 feet	56 feet
173	8 feet	9 feet	52 feet
174	28 feet	29 feet	64 feet
175	28 feet	32 feet	64 feet
177	20 feet	25 feet	56 feet

When it is remembered that the trees considered were cut to a given diameter, being between twelve and fourteen inches outside measure four and one-half feet from the ground, the above tables prove extremely suggestive. It is evident that no relation exists between diameter and height capable of expression in the form of a ratio. In the region considered, trees twelve to fourteen inches in diameter show following height measurements:

<i>Species.</i>	<i>Average for 10 trees.</i>		<i>Least height.</i>	<i>Greatest height.</i>
Birch	59 feet	7 inches	52 feet 6 inches	65 feet
Chestnut	59 feet	6 inches	52 feet	68 feet
Beech	66 feet		56 feet	92 feet
White Ash.....	65 feet		54 feet	80 feet
Pignut Hickory.....	71 feet	8 inches	58 feet 9 inches	80 feet
Shellbark Hickory..	67 feet	6 inches	60 feet 6 inches	76 feet 9 inches
Black Walnut.....	64 feet	4 inches	40 feet	86 feet
Red or Sweet Gum.	67 feet	4 inches	57 feet	82 feet
Yellow Poplar.....	75 feet	1 inch	61 feet	89 feet
Black or Sour Gum.	66 feet		60 feet	76 feet
Scrub or Jersey Pine	56 feet	9 inches	48 feet 6 inches	65 feet
Sycamore	64 feet	9 inches	60 feet	76 feet
White Oak.....	64 feet	8 inches	54 feet 6 inches	69 feet 6 inches
Scarlet Oak.....	67 feet	10 inches	61 feet	76 feet
Chestnut Oak.....	63 feet	5 inches	51 feet 6 inches	69 feet 9 inches
Red Oak.....	60 feet	10 inches	56 feet	75 feet
Black Oak.....	66 feet	10 inches	56 feet 9 inches	80 feet 7 inches
White Elm.....	58 feet	6 inches	52 feet	68 feet

It is interesting to note that the results obtained from the small number of trees considered under each species, are borne out by an inspection of the forests of the region studied. The relative height of the species is, without doubt, practically correct, and while the average height of each species might require some modification, it is approximately correct. Within each species, however, the tables show that in trees of the same diameter the height may vary widely. In the case of the black walnut, for example, tree No. 179, with a diameter of fourteen inches, is forty feet high, while tree No. 163, with a diameter of thirteen inches is eighty-six feet high. It is, however, safe to say that any considerable number of Black Walnut trees of a diameter of thirteen to fourteen inches will average about sixty-five feet in height. This wide variation in height is, in the region under consideration, due in some measure to the unevenness in density of the second growth stand. In some cases the conditions are practically those of the open, while in others they are forestal.

Another feature brought out by the tables is the scant amount of clear bole, which in some cases is as low as six feet and in many does not exceed eight or ten feet. An examination of the datum sheets shows that this is directly related to the density of the stand. In case of a short clear bole there are no other trees within a radius of fifty feet, or if any are present they are so small as to show that they have sprung up after the tree in question had acquired its permanent form.

Associated with this is the slight height at which the main branching occurs. An examination of the tables will show that relatively few trees are included which would furnish a clear sixteen-foot log and only one or two which would furnish two such logs. The economic significance of these characters is so evident as to need no discussion.

Some important deductions can be drawn from the facts set out in this paper.

1. The growing of "saw-timber" requires not merely care and skill, it also requires time. If the one hundred and eighty trees examined are considered it is found that the average time required to reach a diameter of twelve inches was ninety-four years. Saw-timber twelve inches in diameter of the species is not high class material. As a rule (excepting perhaps the hickories) the growth rate begins to decrease after sixty or seventy years, so that any diameter increase above the limits indicated would be extremely slow. Investment in land for the purpose of producing high grade saw timber is not a promising one for the individual. Such investments are suitable for the State or for great corporations.

2. These studies indicate that the reforestation of our denuded areas is not a task for the individual land owner or investor, but is one which properly belongs to the State or in exceptional cases to great industrial corporations dependent upon the forest for raw material. The value of such investments is indicated by the large acreage of such land acquired within the last few years by the States of New York, Pennsylvania, Michigan, Minnesota, Wisconsin and others.

3. The data emphasize the fact of the necessity of properly managing the existing woodlots. In practically every instance reinforcement is necessary in order to secure a tree form which will have a market value. It is necessary, also, in the interests of true conservation that the woodlot should carry its full load of trees. Under present conditions this increase in the number of trees per acre, especially if of high grade species, cannot be looked for from natural seed regeneration. Suitable seed trees of desirable species do not exist in any area in sufficient numbers to insure their production as against that of less desirable forms. Fortunately this artificial reinforcement is neither difficult nor expensive. It requires chiefly time and persistence. It should be recognized that a woodlot carrying only one-half of the trees of which it is capable is as great a mistake economically as to permit a corn-

field to stand without replanting when every other hill is vacant. If the land owners of the State should compel the woodlot to carry its full load of trees the future of our wood working industries would be secure. The area within the State, now considered timber land, would be sufficient, if properly managed and made to carry its full load of trees, to meet all of the prospective demands of the State for many years.

4. Other facts obtained in these studies, but not set out in this paper, show that our present stand is not merely unsatisfactory as to quantity, but also as to quality. The proportion of the species is wrong. In almost every case the species of high value occur in scant numbers, the bulk of the stand being made up of species of relatively inferior value. There are to be found ordinarily more black oak than white oak, more black hickory than shellbark hickory. This condition is the result of long continued selective cutting and is one which can only be remedied by artificial reënforcement. The woodlots of the State must not only carry more trees, they must also carry trees of higher grade. Such a change of condition cannot be brought about in a year or in two years, but persistent, intelligent effort will ensure success in a relatively short time.

In the region studied, which is fairly typical of large areas in the southern counties, a stand in which the trees average from twelve to thirteen inches in diameter, is approximately one hundred years old. None of these stands will cut to exceed 2,500 to 3,000 feet B. M. per acre; they should cut from 5,000 to 7,000 feet. The proportion of species is unsatisfactory. The species which dominate in numbers are not of high value, and valuable species are sparingly represented. These are the conditions which are to be corrected if our citizens do their part in the work of forest conservation.

While the annual growth rate of the species discussed might be much more rapid in other parts of the State, none of the other statements of this paper would require modification. In no part of the State do the timbered areas show a full stand, a profitable proportion of species or any evidence of intelligent management. Until these facts are recognized and their significance appreciated the agitation for forest conservation is practically useless.

Taking all of the facts into consideration the maintenance and improvement of existing wooded areas is the most practical and most promising line of effort in the conservation of our forest re-

sources. This work is wholly the function of the individual owner. It is hoped that this paper will give something of intelligent direction to his efforts.

The reforestation of the thousands upon thousands of acres of stripped and wasting land, is not the function of the individual, it belongs in all good reason, in economy, in a wise prevision of the welfare of the commonwealth, to the State. In case the State fails to see and seize the opportunity it will be taken up by the great corporations controlling our wood-working industries.

Trees of Indiana.

BY CHAS. C. DEAM.

The number of trees included in this list is wholly arbitrary, the scientific definition of a tree being ignored. All the woody plants of the State that usually attain a diameter of 10–15 cm. (4–6 inches) have been included and also a few that rarely attain this size in our area. *Alnus rugosa* (Alder), which in our area is usually a shrub, is included because it so closely resembles *Alnus incana* (Tag Alder) that it might be mistaken for it. Forms in our area that rarely attain tree size and are generally regarded as shrubs, such as *Euonymus atropurpureus* (Wahoo), *Rhus* species (Sumacs) and *Hamamelis* (Witch Hazel) have been excluded. Trees introduced that have freely escaped and have successfully maintained themselves for many years are considered members of our flora, but horticultural trees which have escaped, such as the apple, pear and plum have been excluded.

Each tree is considered under the following heads: botanical description, distribution, economic uses and horticultural value.

Botanic description.—Great care has been taken to avoid technical terms, but occasionally for the sake of precision and brevity, it has proven necessary to introduce them. It is believed, however, that none have been used of which the common school dictionary will not give a satisfactory definition.

Botanical names are usually pronounced according to the English method of pronouncing Latin. The accented syllables have been marked as follows: the grave (') to indicate the long English sound of the vowel and the acute (´) to show the short or otherwise modified sound.

Some of our trees are easily identified and short descriptions are sufficient, while others, such as the oaks and hickories, are not easily identified and more detailed descriptions are desirable. The descriptions have been based upon characters which are conspicuous in order that the aid of a microscope or lens would not be necessary. The color, size and measurements are based upon fresh material from mature trees. The measurements are given in the metric system, followed by the English equivalent in parentheses. The last page is a plate on which the systems of measurements are compared. The etymology of such generic names as

are of special interest has been given. The nomenclature conforms to that of the United States Forest Service, and when it differs from Gray's Manual, 7th edition, the synonym is given after the common name. The common names are those commonly or locally used in this State, and when text-book common names are given they are so indicated. The names are arranged in the order of the frequency in which they are used, the most common being first. In naming the associate trees, they have been arranged in the order of their frequency, the first being the most numerous.

The Malaceae (Apple Family) has been contributed by W. W. Eggleston of the Bureau of Plant Industry, Washington, D. C., who is a specialist in this group.

Distribution.—The general distribution is given first, which is followed by the distribution in Indiana. The number of individuals occurring on a given area is defined by using the terms common, frequent, rare, etc., which have no definite meaning, so the following arbitrary meanings have been attached to the following words and carefully followed throughout: very common, more than 25 trees to the acre; common, 5-25 trees to the acre; frequent, 1-5 trees to the acre; infrequent, 1 tree to 2-10 acres; rare, 1 tree to every 11-100 acres; very rare, 1 tree to more than 100 acres; local, when the distribution is circumscribed or in spots.

The published records of the distribution of each species include only those where the name and county or locality are definitely given. When an author mentions one or more trees and the location incidentally, or when an author is not discussing the trees of the State, such publications are not credited. In considering some of the older publications it should be borne in mind that scientific accuracy was not as rigorously demanded as at present, and that some of the authors were not trained botanists. When errors in such publications are beyond dispute, attention has been called to them. There are other records that are questionable, and attention will be drawn to them when it is noted that they are beyond the known range of the species in the State.

Additional records are those based on existing specimens deposited in the following herbaria: Deam, Bluffton; Depauw University, Greencastle; Grimes, Russellville; Lilly, Indianapolis; Purdue University, Lafayette; Wabash College, Crawfordsville.

The fact that a tree is not given as occurring in certain counties, does not imply that it is not found there, but that it has not been reported. It is believed that about one-half of our trees are found in nearly every county of the State.

A county map has been inserted on page 2 to assist in locating the records of the distribution of the species.

Economic uses.—Under this head the physical appearance and qualities of the wood of each species and its principal uses are given. Other commercial products which may be obtained from our trees are also mentioned. It will be noted that no mention is made of the dry distillation of wood, because at present it is not used for that purpose in this State. All species of trees are used more or less for fuel in this State, but only the principal ones are named.

Horticultural value.—The silvicultural qualities of only such species as are adapted to ornamental, shade tree or forest planting are discussed. The planting, spacing and management of such trees as are adapted to forest planting are discussed in detail.

Drawings.—The drawings have been made by Miss Minnie Ellsworth Bartlett of Indianapolis. All were made from herbarium specimens taken from Indiana trees, which are deposited in the Deam herbarium, except the fruit of the genera, *Juglans*, *Hicoria*, *Malus* and *Crataegus*, which were drawn from fresh mature fruit. The drawings are all natural size unless otherwise indicated.

Acknowledgments.—Material for the preparation of this work has been gathered from field work in sixty-two out of the ninety-two counties of the State at different times during the past fifteen years. All publications bearing on the distribution of Indiana trees have been freely used, and credit is here acknowledged. The general range of the species and the character and qualities of the wood have in the greater part been taken from the works of Britton, Hough and Sargent, to whom indebtedness is acknowledged.

My thanks are tendered to the Board of Forestry for the privilege of undertaking this work and for services rendered. The most grateful acknowledgment is accredited Prof. Stanley Coulter, who read the manuscript, for inspiration, many valuable suggestions and criticisms. The favor of having the genera *Malus* and *Crataegus* written by the well known specialist, W. W. Eggleston, is appreciated not only by the author but will be by the readers of this book. The author wishes to acknowledge the assistance of Dr. N. L. Britton in examining critical specimens; of E. B. Williamson in reading manuscript; of E. J. Grimes and W. B. VanGorder in furnishing material. Last, but not least, I wish to acknowledge the assistance of Stella M. Deam, my wife, in field and clerical work.

TREES OMITTED FROM THE PRESENT LIST WHICH HAVE BEEN REPORTED AS NATIVE TO THE STATE.

It should be borne in mind that the forests of Indiana have undergone many changes since the first list of Indiana plants was published in 1819. Many birds and mammals have vanished from our area, and it is not unreasonable to believe that many of the plant forms also have disappeared after the advent of the ax and plow.

In the preparation of the present list of trees of the State, a critical examination has been made of the records of all the trees that have been reported as being native to the State. This seemed advisable in order that the present work might not be burdened with the discussion of unnecessary species and to correct errors if any existed.

Pinus rigida Miller. PITCH PINE. This species was given by Baird and Taylor as occurring in Clark County in a flora of the county published in the manual of the schools of Clark County, Indiana, 1878-1879. The range of *Pinus rigida* is east of our area, and since the authors did not include in their list *Pinus virginiana* (Scrub Pine), which is frequent on the knobs, it is believed the reference to *Pinus rigida* should be referred to *Pinus virginiana*. It is to be noted that Prof. Stanley Coulter, who knew the authors of this flora and who is well acquainted with the trees of that vicinity, ignored the reference in his catalogue of the plants of Indiana.

Chamæcyparis thyoides (Linnæus) Britton, Sterns and Poggenberg. WHITE CEDAR. This tree was given a place in our flora upon the authority of Dr. C. R. Dryer of Ft. Wayne, who reported it from Allen County. All efforts to verify this record have failed. Dr. Drake in his picture of Cincinnati, published 1815, page 83, says,—“The White Cedar and Cypress are found on the banks of the Wabash.” Since the range of this species is given by Sargent as along the Atlantic coast from Maine to Florida, it is improbable that it occurs within our area.

Pópulus balsamífera Linnæus. BALSAM POPLAR. This species is reported by Bradner from Steuben County, where it may occur. The writer has a leaf specimen collected near Gage Lake in Steuben County, which if taken from a mature tree is unquestionably from *balsamífera*; if from a young tree, it may be *grandidentata*. In a reply to a letter addressed to Mr. Bradner asking if he had specimens from the tree on which his record was made, or if he knew where the tree was to be found, or if the record he made was from a cultivated or an escaped tree, he says he had no specimens and

had no recollection of the location of the tree. Since the record could not be verified it is thought best to drop it for the present. J. M. Coulter reports it from Jefferson County, and A. H. Young, who also reported on the flora of Jefferson County, fails to mention it. The preceding record may have been made from a cultivated tree, or it may have been mistaken for *Populus grandidentata*, which is not reported and is within range of the county. Baird and Taylor also reported it from Clark County in a flora of Clark County but failed to report *Populus grandidentata*, which is locally frequent.

Hicòria aquática (Michaux) Britton. WATER HICKORY. (*Carya aquatica* (Michaux) Nuttall.) This is listed as one of the principal trees occurring along the Wabash in the Coblenz edition of Prince Maximilian's travels in North America. It is recorded as "Water Bitternut (*Juglans aquatica*)."

If it occurs in our area it most likely would be found in the extreme southwestern counties. It has been reported from Gallatin County, Illinois, bordering Posey County on the west.

There are two other records of its occurrence in the State, which are doubtful. Ryland T. Brown reported it in a list of the principal trees of Fountain County in a report of the geology of Fountain County. *Hicoria laciniosa*, which is sometimes called swamp hickory and which is more or less frequent in the county, he failed to report. It is believed this reference to *Hicoria aquatica* should be referred to *laciniosa*. B. C. Hobbs also reported it as common in Parke County in a short list of the principal trees. He named only four of the five or more species of hickory that occur in the county, and it is believed, since he was no botanist, that he confused the names. Elliott in his Trees of Indiana gives "*Carya aquatica*" as common, but no doubt this reference should be transferred to some other species.

Hicòria myrísticaefórmis (Michaux) Britton. NUTMEG HICKORY. This tree also was reported by Prince Maximilian as occurring along the Wabash River. The known range of the species is from North Carolina to Arkansas, and for this reason the species is not included in this list.

Castànea pumila (Linnaeus) Miller. CHINQUAPIN. This species was given a place in our flora in Coulter's catalogue upon the authority of Sargent, Ridgway and Schneek. Ridgway, in giving an additional list of the trees of the lower Wabash Valley (Proc. U. S. Nat. Mus. 17:415), says: "There is some doubt as to No. 16, *Castanea pumila*, which is given on Prof. Sargent's authority; but there is a possibility of an error having been made from the cir-

cumstance that the name 'chinquapin' is in that region almost universally applied to the fruit of *Quercus Muhlenbergii*." The Posey County record was based on a specimen in Dr. Schneck's herbarium, which proves to have been taken from a cultivated tree near Poseyville.

Quercus ilicifolia Wagenheim. BEAR OAK. This species is credited to our flora by Will Scott in his ecological study of "The Leesburg Swamp" in Kosciusko County, published in the Indiana Academy of Science, 1905, page 225. In a reply to an inquiry addressed to him he says no herbarium material was preserved. This ecological work was done during the summer months while working at the biological station at Winona Lake. In a footnote in this paper we are informed that for the identification of the trees listed, Apgar's Trees of the Northern United States was used. In this key to the trees, *Quercus velutina* (Black Oak) is given only as a variety of *Quercus coccinea* (Scarlet Oak), and the distinction between *Quercus velutina* with its many formed leaves, and *Quercus ilicifolia* is not made apparent. In view of the fact that the natural habitat of *Quercus ilicifolia* is sandy barrens and rocky hillsides and its western range is eastern Ohio, it is believed what Mr. Scott had in hand was a variable form of *Quercus velutina*, which is frequent in that vicinity. The evidence is not encouraging enough to include it.

Quercus nigra Linnæus. WATER OAK. This species has been reported by several authors for Indiana. It is believed that a majority of the records should be transferred to *velutina* and *imbricaria* or *marylandica*. Gorby and Schneck call *Quercus nigra* black jack oak, which is generally the common name for *Quercus marylandica*. Ridgway in his writings of the flora of the lower Wabash Valley, likewise speaks of *Quercus nigra* as jack oak and says it is found in poor soil. Coulter in his catalogue of Indiana plants regarded these references to *nigra* as errors and did not include it in his list. The report for Crawford County by Deam should be transferred to *marylandica*. Since the range of the species is not north of Kentucky, the reference to the species in the State should be dropped.

The published records are as follows: Carroll (Thompson); Crawford (Deam); Delaware, Jay, Randolph and Wayne (Phinney); Jay (M'Caslin); Fountain (Brown); Miami (Gorby); Parke (Hobbs).

Quercus Phellos Linnæus. WILLOW OAK. This species has been reported from various counties of the State. The tree is said to grow in swamps and on sandy uplands, ranging from Staten Island,

New York, south to Florida and west to Texas, and north to southern Kentucky. If it occurs within our area it no doubt would have been found by Dr. Schneck, who was an enthusiastic student of the oaks. He reported it as occurring in the lower Wabash in his early writings, but his herbarium contained no specimens. The writer while in search for this species in Posey County met three men in widely separated parts of the county who were acquainted with the species in the South and they said they had never seen it in Indiana. One of the men was an old man who had spent his boyhood in Arkansas and was well acquainted with the willow oak before he came to Indiana. It is believed what has been reported for *Phellos* has been narrow-leaved forms of *imbricaria* (Shingle Oak), and that the records should be transferred to that species.

The published records are as follows: Gibson, Knox and Posey (Schneck); Knox (Thomas); Miami (Gorby).

Planèra aquática (Walter) J. F. Gmelin. PLANER-TREE. WATER ELM. This tree was included in Coulter's catalogue upon the authority of Sargent, who includes Indiana in the range of the species in his "Forest Trees of North America", Vol. 9, U. S. Census Report, 1880, page 124. Dr. Schneck spent a lifetime along the lower Wabash bottoms and very carefully preserved specimens of all the flora of the region where this species is reported to occur. In his report of the flora of this region in 1875 he does not include this tree. An examination of his herbarium material showed no specimens of this tree either from Indiana or Illinois. It is fair to presume if he had been acquainted with the tree he would have had it represented in his herbarium. Since the white elm is frequently called water elm, as well as the planer-tree, it is easy to understand how confusion might arise in separating these trees by non-professional people.

Îlex opàca Aiton. Holly. This tree was included in Coulter's catalogue on the authority of Robert Ridgway, who said it "had been listed for southern Indiana." It has not been possible to establish a reliable State record for the species, so it is dropped from the present list.

Âcer pennsylvànica Linnæus. MOOSEWOOD. The only record of this tree occurring in Indiana is in a report of the trees occurring along the Wabash River by Prince Maximilian. While Indiana is within the possible range of the species, it has not been discovered since. If not extinct in our area it is most likely to be found along the hills of the southern counties. Robert Ridgway says that he and Dr. Schneck saw it growing in a wooded cove near a cavern called Flory's Cave in Johnson County, Illinois.

Nyssa aquática Linnæus. TUPELO GUM. This species is included in Coulter's catalogue of Indiana plants and has been reported from many widely separated counties. But few specimens were preserved upon which county records were made. Two of these have been examined which showed that they were variable leaf specimens of *Nyssa sylvatica* (Sour Gum), no doubt taken from a vigorous branch or a thrifty young tree. It is believed that all the locations of this species occurring in the State should be referred to *Nyssa sylvatica*. This species has been a puzzle to the systemist who is not acquainted with both species, and so far as is known no one of those who reported *aquatica* for the State was acquainted with it at the time the report was made. The tree is said to grow in cypress swamps from southern Virginia west to Missouri and up the Mississippi Valley to southern Illinois. If it occurs in our area it would be found in the cypress swamps along the lower Wabash. Dr. Schneck reported it for this region in the early years of his botanical work, but on May 20, 1902, on a specimen of *Nyssa* he makes the following note: "I now believe all the forms of *Nyssa* are *sylvatica*." This note is made to cover the forms of the Wabash Valley. Robert Ridgway also reported it for Knox County in his earlier publications, but in a letter from him dated November 11, 1911, he says, "You will observe that *Nyssa aquatica* is not given in my two catalogues, and I think the species may safely be omitted."

The published records of its distribution are as follows: Dearborn (Collins); Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Haymond) and (Meyncke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Coulter); Knox (Ridgway); Kosciusko (Coulter); Lake (Barnes); Marion (Wilson); Monroe (Blatchley); Noble (Van Gorder); Posey (Schneck); Putnam (MacDougal); Vigo (Blatchley).

Halësia díptera Ellis. SNOWDROP TREE. (*Halesia carolina* Linnæus). This tree has been admitted to our flora upon the authority of Robert Ridgway who reported it as occurring near Evansville. Mr. Ridgway says he quoted from some standard authority but can not recall where he saw it. Since the range of the species is much to the south of our area it is not included in this list.

Fráxinus caroliniàna Miller. WATER ASH. This species was included in Coulter's catalogue of Indiana plants upon the authority of Dr. Schneck. It is asserted that specimens were verified at the Shaw Botanic Gardens, but an examination of the material there showed that no specimens from Indiana were deposited there.

There were no specimens in Dr. Schneck's herbarium, so it is to be inferred that an error in determination has been made. Since the range of the species is given as swamps from Virginia west to Arkansas, it is proposed to drop this species from our flora. The published record of Brown for Fountain County is considered an error.

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PINACEÆ. THE PINE FAMILY.

Trees with a resinous juice; mostly evergreen; leaves linear or scale-like, clustered or alternate; flowers naked, appearing in early spring; fruit a cone or sometimes berry-like. A family of trees of great economic importance and widely distributed, although in our area the trees are usually small and few in number.

Leaves all linear.

Leaves in bundles or fascicles.

Leaves in bundles of 2-5, with a sheathing base..... 1 *Pinus*.

Leaves in bundles of more than 5, without a sheathing base..... 2 *Larix*.

Leaves apparently 2-ranked.

Leaves bluish-white beneath..... 3 *Tsuga*.

Leaves green on both sides, deciduous..... 4 *Taxodium*.

Leaves scale-like, or some of them short and awl-like.

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Fruit berry-like..... 6 *Juniperus*.

1. PINUS. THE PINES.

Evergreen trees with needle-shaped leaves in bundles of 2-5 with a sheath at the base; flowers appearing in the spring, the staminate clustered at the base of the season's shoots, the pistillate on the side or near the end of the shoots; fruit a woody cone which matures at the end of the second season, or more rarely at the end of the third season; scales of the cone variously thickened; seeds in pairs at the base of the scales. Some trees of this genus are tapped for their resinous juice from which turpentine and rosin are obtained. Repeated tappings of the trees soon kill them and the supply of trees is fast decreasing. The price of turpentine and rosin has advanced more than one hundred per cent. during the past twenty years.

Leaves 5 in a bundle, 7-10 cm. (3-5 inches) long..... 1 *P. Strobus*.

Leaves 2-3 in a bundle.

Scales of cones unarmed, leaves about 2.5 cm. (1 inch) long..... 2 *P. Banksiana*.

Scales of cones tipped with a short spine, leaves about 5 cm. (2 inches) long..... 3 *P. virginiana*.

1. *Pinus Strobus* Linnæus. WHITE PINE. Plate 7. Bark on old trees thick, dark reddish-brown, furrowed, on young trees greenish, smooth or nearly so; young twigs scurvy-pubescent, soon smooth and brown; leaves normally 5 in a bundle, sometimes more, 7-10 cm. (3-5 inches) long, 3-sided, soft bluish-green, sharp pointed:

PLATE 7.

PINUS STROBUS Linnaeus. WHITE PINE. ($\times \frac{1}{2}$.)

cones drooping, pointed, 10-15 cm. (5-7 inches) long, about 2.5 cm (1 inch) in diameter when closed, about 4 cm. (2 inches) when opened, falling during the winter.

Distribution. Newfoundland to Manitoba, south to Iowa, Ohio and along the Alleghany Mountains to northern Georgia. In Indiana it is found on the dry sand dunes bordering Lake Michigan, and in lower ground in sparing numbers for about 15 miles inland. In a few places along the lake it was formerly common, but on account of its commercial value was cut, and it has been succeeded by a mixed forest. In this part of the State where it grows in low ground it is associated with the white elm, black ash and soft maple. It again appears on the sandstone bluffs of several creeks in Warren County. In this locality it is found near the edge of the bluffs which range from 20 to 100 feet in height. It is next found on a sandstone bluff of Sugar Creek in Montgomery County. At this point a few trees are found, associated with the hemlock. Upon good authority it is said a few trees occur in Clark County on the tops of the hills near Borden, associated with *Pinus virginiana* and a few in a similar location near St. Joe in Floyd County. In our area it is usually a medium sized tree in the dry soil conditions and a moderately large tree in the low ground.

The published records of the distribution are as follows: Clark (Baird and Taylor); "a few counties in the southern, and a few in the northern part of the State." (Coulter's Catalogue, Rept. Ind. Geol. Surv., Vol. 24, p. 615.)

Additional records are: Laporte (J. M. Coulter); Lake, Laporte, Montgomery, Porter and Warren (Deam).

Economic uses. Wood light, not strong, straight grained, works easily, nails without splitting, seasons well, shrinks less than any other pine, sap wood nearly white, heart wood a light brown. The supply in this State is so limited as to be of no economic importance. The white pine has been the most preferred of all American woods for building material on account of its compact grain, working qualities, etc., until at present the supply is well nigh exhausted. Once it was one of the cheapest, now it is equal in price to the more rare and valuable timbers.

Horticultural value. Frequently planted as an ornamental tree; grows faster than any other American pine and is adapted to almost any kind of soil, although its preference is for a silicious soil. It should be propagated by planting seedlings. It has not been tried for the purpose of reforestation in this State on a scale large enough to predict results, however it appears that it would be one of the best species to use in the sand dune region bordering Lake Michigan.

2. ***Pinus Banksiana*** Lambert. JACK PINE. SCRUB PINE. Plate 8. Bark reddish-brown, quite scaly, flakes small; shoots of the season yellowish-green, turning reddish-brown; leaves in twos, about

PLATE 8.



PINUS BANKSIANA Lambert. GRAY OR JACK PINE. (x 1.)

2.5 cm. (1 inch) long, divergent, curved or twisting, stout and stiff, sharp-pointed, outer surface convex, inner concave or flat, scattered along the branch and persisting for two or three years, dark green; cones light yellow when young, dull brown when mature,

sessile, sharp-pointed, oblique at the base, oblong-conical, 1.5-3 cm. ($\frac{3}{4}$ -1 $\frac{1}{2}$ inches) long, erect, incurved or pointing in the direction of the branch.

Distribution. Nova Scotia to the northwest territory, south to Maine, northern New York, southern shores of the Great Lakes to central Minnesota. In Indiana it is frequent to common on the sand dunes bordering Lake Michigan.

The published records of the distribution are as follows: Lake (Hill) and (Blatchley); Porter (Blatchley); Putnam (MacDougal)*. Additional records are: Lake and Porter (Deam).

Economic uses. In our area it is only a scrubby or medium sized tree and occurs so sparingly as to be of little economic importance.

3. *Pinus virginiana* Miller. SCRUB PINE. SPRUCE PINE. Plate 9. Bark dark brown, with rather shallow fissures, the ridges broken, somewhat scaly; branches spreading, at first green, light brown or purplish with a bloom, becoming a gray brown; leaves in bundles of 2, rarely 3, twisted, deciduous during the third or fourth year, about 5 cm. (2 inches) long; cones sessile or nearly so, narrowly conic when closed, 4-7 cm. ($1\frac{1}{2}$ -2 $\frac{3}{4}$ inches) long, opening in the autumn of the second year, frequently remaining on the branches 3 or 4 years; scales armed with a curved spine 2-4 mm. (about 1-8 inch) long.

Distribution. From Long Island, New York, south along the coast to northern Georgia and Alabama, west to eastern Kentucky and southern Indiana. In Indiana it is confined to the "knob" region of a few counties near the Ohio River. As nearly as could be ascertained the limits of its distribution are as follows: North as far as Scottsburg in Scott County, west in Washington and Floyd counties to Blue River and east to the Pennsylvania railroad which passes through Clark County. In Clark County near Henryville it is found a few miles east of the railroad. This location is not contained in the "knobs" and it is believed that the few trees found obtained a foothold after the original forest had been cut. Investigation showed that it never occurred in any of the southeastern counties. References to *Pinus echinata* should be referred to this species. Baird and Taylor reported *Pinus rigida* for Clark County but did not report *virginiana* which is common on some of the hills. Doubtless the preceding record of *rigida* should be referred to *virginiana*.

*The specimen on which this record is made is in the Depauw herbarium, and is *Tsuga canadensis*.

PLATE 9.

PINUS VIRGINIANA Miller. SCRUB PINE. ($\times \frac{1}{2}$.)

It is usually a small tree, although under favorable conditions it reaches a diameter of 4-7 cm. (16-28 inches) and a height of 25 m. (80 feet). In cutting quite a number of mature trees on the Forest Reserve it was found that many of the larger trees were doty at the base.

The published records of the distribution are as follows: Clark (Baird and Taylor) and (Smith).

Additional records are: Clark (Deam).

Economic uses. Wood light, soft, not strong, brittle and light brown. Used in construction and for fuel. Supply so limited as to be of little economic importance. It grows rapidly, and since it is adapted to the sterile hillsides it might be successfully used in reforesting eroded hillsides.

2. LÂRIX. THE LARCHES.

Lârix laricina (Du Roi) Koch. TAMARACK. LARCH. Plate 10. Trees very tall; bark gray or reddish brown, furrowed and scaly; branches remote, usually horizontal; leaves pale green, triangular in cross section, 1-2.5 cm. ($\frac{3}{8}$ -1 inch) long, obtuse at the apex, in clusters on the branches, or scattered along the season's shoots, falling off in the autumn; staminate flowers borne on the short and leafless lateral branches, the pistillate appear with the leaves on the branches of a previous season; cones borne on the short and stout dwarf branchlets, erect or nearly so, 12-20 mm. ($\frac{3}{8}$ - $\frac{7}{8}$ inch) long, reddish-brown while growing, turning to a light brown at maturity, persisting on the tree for at least a year.

Distribution. From Labrador south to northern Pennsylvania and Indiana, west to the Rocky Mountains and north to Alaska. In Indiana it is confined to the northern part of the State where it is found in cold swamps or in peat bogs where it frequently forms dense stands. It flourishes in situations too low for other species of trees. It is frequently associated with the birches (*Betula lutea* and *pumila*), poison sumac (*Rhus Vernix*), black alder (*Ilex verticillata*) and swamp blueberry (*Vaccinium corymbosum*). It extends south in the state to 41° of latitude. In our area it seldom acquires a diameter over 5 dm. (20 inches). Locally it is classed as white and yellow tamarack. The yellow is considered the better of the two.

The published records of the distribution are as follows: Kosciusko (Chipman), (Clark), (Scott) and (Youse); Marshall (Hessler); Noble (J. M. Coulter) and (Van Gorder); Steuben (Bradner).

Additional records are: Dekalb, Porter and Steuben (Deam).

PLATE 10.



LARIX LARICINA (Du Roi) Koch. TAMARACK. (x 1.)

PLATE 11.



TSUGA CANADENSIS (Linnæus) Carr. HEMLOCK. ($\times \frac{1}{2}$.)

Economic uses. Wood heavy, hard, strong, light brown. Used in construction, fence posts and for fuel. Since the swamps have been drained the supply of this species has rapidly decreased until now it is of little economic importance.

3. TSÛGA. THE HEMLOCKS.

Tsuga canadensis (Linnæus) Carrière. HEMLOCK. Plate 11. Tall trees with reddish-brown or grayish and deeply furrowed bark; leaves short petioled, 1-1.5 cm. ($\frac{3}{8}$ - $\frac{7}{8}$ inch) long, flat or angular, obtuse or notched, apparently 2-ranked, bright green, shiny above, bluish-white beneath, persisting for about three years; staminate flowers appear early in the spring from buds in the axils of the leaves of the previous year, the pistillate terminal, erect, oblong; fruit a pendulous cone borne on the end of last year's branch, maturing the first season, short stalked, ovoid, 1.5-2.5 cm. ($\frac{1}{2}$ -1 inch) long; seeds 2 in the axil of each scale.

Distribution. Nova Scotia west to eastern Minnesota, south to Delaware and along the mountains to Alabama. In Indiana it is found in limited numbers on the bluffs of Bean Blossom Creek in Brown County, of Walnut and Raccoon creeks in Putnam, of Sugar Creek in Montgomery and Parke, of Clear Creek between Clark and Floyd counties, of Raccoon Creek in Owen and on the north branch of the Muscatatuck River near Vernon in Jennings County. In our area it sometimes reaches a height of 30 m. (95 feet) and a diameter of 5-7 dm. (20-28 inches).

The published records of the distribution are as follows: Clark (Baird and Taylor); vicinity of New Albany (Clapp); Parke and Putnam (Ragan).

Additional records are: Parke (Wright); Putnam (Grimes) and (MacDougal); Brown, Crawford, Jennings, Montgomery, Parke, Putnam and Owen (Deam).

Economic uses. Wood light, soft, brittle, light brown, not durable, difficult to work, splintery but holds a nail well. Used for construction purposes. Where the tree is common the bark is used for tanning purposes. The powdered bark is used in medicine.

4. TAXÛDIUM. THE BALD CYPRESS.

Taxodium distichum (Linnæus) L. C. Richard. CYPRESS. Plate 12. Straight tall trees usually with a buttressed base, frequently hollow at the base. When grown in very wet situations it develops steeple-like projections from the roots to above the water level

known as "knees"; bark gray or reddish-brown, long fibrous strips separating from the trunk; branches horizontal or drooping; leaves spirally arranged, appearing as if 2-ranked, 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch)

PLATE 12.



TAXODIUM DISTICHUM (Linnæus) Richard. CYPRESS. (x 1.)

long, acute, yellowish-green, turning brown in the fall and dropping off; staminate flowers numerous, borne on long terminal drooping panicles, pistillate in small terminal clusters near the ends of the twigs of the previous season; fruit a woody cone, usually in pairs,

at the end of the branches, maturing the first year, globose, about 2 cm. ($\frac{3}{4}$ inch) in diameter, wrinkled; seeds in pairs under each scale.

Distribution. Along the Atlantic coast from Delaware south to Florida and along the Mississippi Valley south from southern Indiana and Illinois to the Gulf. In Indiana it is found only in the southwestern part of the State, along the wet banks of streams or in river swamps and sloughs. In Posey County it is found in a few sloughs along the Ohio River about 3 miles east of Mt. Vernon, on the low border of Hovey Lake and in a few swamps along the Wabash River south of Bone Bank which is 6 miles south of a line running due west from Mt. Vernon. It is not found between Bone Bank and White River. Just north of White River in Knox County it formerly filled extensive sloughs. These have been drained, cleared and are now cultivated. It is usually a large tree, sometimes reaching a height of 45 m. (145 feet) and a diameter of 18 dm. (72 inches).

The published records of the distribution are as follows: Clark* (Baird and Taylor); Gibson, Knox and Posey (Schneck); Knox and Posey (Wright).

Additional records are: Knox and Posey (Deam).

Economic uses. Wood light, soft, not strong, straight-grained, does not warp or shrink much, variable in color from a light to a dark brown, easily worked, frequently pitted by disease, and lumber which shows this disease is commercially known as "pecky cypress". Used principally for construction purposes. The tree has practically disappeared from our area because the wood is easy to work and the swamps in which it grew have been drained and are now cultivated.

Horticultural value. Strongly recommended by some nurserymen for ornamental planting. In some localities in the eastern states it is a fair success. The tree is adapted to a wet soil and no doubt in such situations would prove hardy and a moderately fast growing tree.

5. THÛJA. ARBOR-VITÆ.

Thuja occidentâlis Linnæus. ARBOR-VITÆ. Plate 13. Small evergreen trees or shrubs with bark on old trees reddish-brown or dark gray, shreddy; branchlets compressed, reddish-brown; leaves of two kinds, sharp-pointed and awl-shaped on the older branches,

*Doubtless from a cultivated tree, because information solicited from the oldest residents of the county failed to verify this record.

PLATE 13.



THUJA OCCIDENTALIS Linnæus. ARBOR-VITÆ. (x1.)

blunt and scale-like on the younger branches, and 4-ranked, yellowish-green, about 6 mm. ($\frac{1}{8}$ inch) long; flowers appear early in the spring from buds of the previous season at the ends of the branches; cones maturing the first season, 1 cm. ($\frac{3}{8}$ inch) or less in length and about 0.5 cm. ($\frac{1}{8}$ inch) in diameter, scales of cone 6-12.

Distribution. New Brunswick south to North Carolina, west to Minnesota and Manitoba. In Indiana it has been noted in only a few of the northern counties, where it is found in swamps.

The published records of the distribution are as follows: Hamilton* (Wilson); Lake (Hill).

Additional records are: Lake (Deam).

Economic uses. Wood soft, brittle, rather coarse-grained, pale yellow brown, durable, fragrant. In Canada where it is abundant it is used for fence posts, telegraph poles, shingles and on account of its lightness has been a favorite wood for making canoes. A tincture and a fluid extract of the leaves are used in medicine.

Horticultural value. It is frequently planted for ornamental purposes and several horticultural forms have been developed. It is adapted to all kinds of soils and exposures. Transplants readily but grows slowly. It retains its lower limbs which makes it a desirable tree to plant for a wind-break. The dwarf forms are commonly planted for hedges.

6. JUNÍPERUS. THE JUNIPERS.

Juniperus virginiana Linnæus. RED CEDAR. CEDAR. Plate 14. Bark reddish-brown, shreddy; leaves sessile, opposite or ternate, usually of two kinds, scale-like or awl-shaped, 4-ranked, appearing as opposite, closely appressed, scale-like, bluish-green, 1.5-2 mm. (about 1-16 inch) long, except on some of the vigorous branches or seedlings where they are loose and about 1 cm. ($\frac{3}{8}$ inch) long; flowers small, terminal or axillary; fruit berry-like covered with a bloom, maturing the first season, bluish, 5-8 mm. ($\frac{1}{4}$ inch) in diameter, sweet, resinous; seeds usually 1-2.

Distribution. Nova Scotia south to Georgia, west to Texas and North Dakota. Found throughout Indiana although it has not been reported from a few counties in the east central part. It is found sparingly in the northern part usually on the bluffs of streams, becoming frequent in the southern part of the State, especially on sterile hillsides and in deserted fields. It is a very slow growing tree and in our area rarely acquires a diameter of 5 dm. (20 inches).

*Doubtless from a cultivated tree.

PLATE 14.



JUNIPERUS VIRGINIANA Linnæus. RED CEDAR. ($\times \frac{1}{2}$.)

The published records of the distribution are as follows: Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Kosciusko (Chipman) and (Clark); Lake (Higley and Radden); Marion (Wilson); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Steuben (Bradner); Vigo (Blatchley)*.

Additional records are: Monroe (Blatchley); Montgomery (Evans); Putnam (Grimes) and (MacDougal); Tippecanoe (Coulter); Crawford, Fountain, Grant, Harrison, Jefferson, Jennings, Johnson, Kosciusko, Morgan, Parke, Porter, Putnam, Steuben, Warren, Washington and Wells (Deam).

Economic uses. Wood light, brittle, close-grained, works easily, durable, sap wood thin and white, heart wood dull red, fragrant. Representative uses are posts, crossties, lead pencils, cigar boxes and chests. In this State when the trees become large enough they are generally used for fence posts. This species furnishes a large number of the commercial fence posts of the State, although they are shipped in, usually from Tennessee.

Horticultural value. It has been used for a long time as an ornamental tree and nurserymen now offer several horticultural varieties. It is adapted to almost all kinds of soils, although its preference is for a thin gravelly soil. It transplants with fair success, grows slowly and is long lived. The tree grows rather compact and since the leaves do not fall for several years it makes a desirable tree to plant for a windbreak. A rust which affects the leaves of apples and pears passes its winter stage on this tree and causes the malformations on the twigs known as "cedar apples." Since the tree is a harbor for this fungus, it should not be permitted to grow near an orchard.

SALICACEÆ. THE WILLOW FAMILY.

Trees or shrubs with simple, alternate leaves; flowers in catkins appearing before or with the leaves, the staminate and pistillate on different trees; fruit a dehiscent capsule, which contains numerous seeds with a tuft of long silky hairs at the apex.

- | | |
|--|------------|
| Buds with one outer scale, leaf blades more than twice as long as wide, stamens 2-10, scales of the flower entire or merely toothed..... | 1 Salix. |
| Buds with numerous scales, leaf blades less than twice as long as wide, stamens more than 10, scales of flower incised..... | 2 Populus. |

*No doubt many of the references to *Juniperus communis* should be referred to this species.

1. *SÀLIX*. THE WILLOWS.

(Derived from the Celtic words, *sal*, near and *lis*, water; in allusion to their place of growth).

Trees or shrubs with slender branches, leaves mostly long and pointed, entire or glandular-toothed. There are thirteen species native to the State and a few European species have become well established. The genus has members adapted to the most varied conditions of life, ranging from the forest, low banks of streams and shores of lakes to the exposed and dry sand dunes of Lake Michigan. The species sometimes hybridize and the relationships of such hybrids are difficult of determination. This genus of trees yields salicin, a substitute for quinine. The bark of some species is used in medicine as a tonic and febrifuge. The wood is used to some extent in the manufacture of charcoal and wood pulp.

Twigs not yellow-green or yellow, stamens more than 2.

Leaves green below, petioles without glands..... 1 *S. nigra*.

Leaves glaucous or whitish beneath at least to near maturity, petioles with or without glands.

Buds about 3 mm. ($\frac{1}{8}$ inch) long, petioles usually without glands..... 2 *S. amygdaloides*.

Buds about 5-10 mm. (about $\frac{1}{4}$ inch) long, petioles always with glands..... 3 *S. lucida*.

Twigs yellow-green or yellow, stamens 2..... 4 *S. alba*.

1. ***Salix nigra*** Marshall. WILLOW. BLACK WILLOW. Plate 15. Bark of trunk rough, thick, flaky, dark brown or nearly black; twigs very brittle at the base, shoots pubescent at first and green or greenish-brown, becoming smooth and darker; buds ovate, 2-3 mm. ($\frac{1}{8}$ inch) long, acute; leaves narrowly-lanceolate, commonly about 10 cm. (4 inches) long, 1 cm. ($\frac{3}{8}$ inch) wide, long taper pointed, acute or rounded at the base, finely serrate, bright green and smooth above, paler and smooth beneath or pubescent along the primary and secondary veins; petioles 4-8 mm. ($\frac{1}{8}$ - $\frac{3}{8}$ inch) long; flowers appear in April or May. Variety ***falcata*** (Pursh) Torrey is a form with narrower and more curved leaves.

Distribution. New Brunswick west to North Dakota, south to Florida and west to Texas. More or less frequent throughout Indiana on the banks of streams and on the borders of lakes and swamps. On the low borders of some lakes and rivers it forms the principal stand on considerable areas. In this State it is usually a small crooked tree, except in the southwestern counties, where it frequently becomes a medium or large sized tree.

The published records of the distribution are as follows: Clark (Baird and Taylor) and (Smith); Delaware, Jay, Randolph and

PLATE 15.



SALIX NIGRA Linnæus. BLACK WILLOW. (x $\frac{1}{2}$.)

PLATE 16.

SALIX AMYGDALOIDES Andersson. PEACH-LEAVED WILLOW. (x $\frac{1}{2}$.)

Wayne (Phinney); Franklin (Meyncke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Scott) and (Youse); Miami (Gorby); vicinity of New Albany (Clapp); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wayne (Petry and Markle).

Additional records are: Lake (Hill); Putnam (Grimes) and (MacDougal); Tippecanoe (Coulter); Noble, Posey, Shelby, Vermillion and Wells (Deam).

Economic uses. Wood light, soft, weak, light reddish-brown, the thin sap wood white, checks badly in drying. Used principally for heading in this State.

2. *Salix amygdaloides* Andersson. WILLOW. Plate 16. Bark of trunk fissured, dark brown tinged with red; twigs somewhat brittle, smooth, orange or reddish-brown; winter buds ovoid, about 3 mm. ($\frac{1}{8}$ inch) long, pointed, smooth; leaves ovate-lanceolate, 5-10 cm. (2-4 inches) long, 1-2.5 cm. ($\frac{3}{8}$ -1 inch) wide, finely serrate, long attenuate at the apex, narrowed at the base, pubescent when very young, soon becoming glabrous, smooth and bright green above, paler or a bluish glaucous and smooth beneath; petioles 1-3 cm. ($\frac{3}{8}$ -1 $\frac{1}{4}$ inches) long; flowers appear in April or May, generally about two weeks after the preceding species.

Distribution. Quebec west to Manitoba, south to central Ohio and west to Illinois, and southward and westward through the Rocky Mountains. In Indiana it is known only from the northern part of the State. The specimens at hand are one taken by Umbach in Lake County and one taken by Deam in Lake County. It is a small tree and is difficult to separate from the preceding species. It has a more upright habit of growth and is usually found on the borders of stagnant water such as ponds, swamps and lakes. In text books it is called the peach-leaved willow.

The published records are as follows: Kosciusko (Scott).

Economic uses. Too rare to be of any economic importance.

3. *Salix lucida* Muhlenberg. WILLOW. Plate 17. Bark smooth or nearly so, reddish-brown, tinged with red, twigs smooth, dark orange the first year, becoming darker the second year; winter buds narrow ovate, 5-10 mm. ($\frac{1}{4}$ - $\frac{3}{8}$ inch) long, reddish-brown, shiny; leaves ovate to lanceolate, 7-15 cm. (3-6 inches) long, long-pointed, narrowed or rounded at the base, conspicuously glandular serrate, with a few hairs when they unfold, soon becoming glabrous, dark green above and paler beneath; petioles 6-12 mm. ($\frac{1}{4}$ -1 $\frac{1}{2}$ inch) long, usually glandular near the base of the leaf; flowers appear in April or May.

PLATE 17.



SALIX LUCIDA Muhlenberg. SHINY WILLOW. ($\times \frac{1}{2}$.)

Distribution. Newfoundland to Manitoba, south to Pennsylvania, northern Ohio and Illinois and west to Nebraska. Schneck reports it as "common along streams" in the lower Wabash Valley.

If the reports are correct the range of the species is extended from the northern part of Ohio southward to southern Indiana. It is found in swamps and on the borders of lakes and streams. In our area it is a small tree, usually less than 1 dm. (4 inches) in diameter. In text books it is called shiny willow.

The published records of the distribution are: Clark (Baird and Taylor); Clay (Wilson); Delaware, Jay, Randolph and Wayne (Phinney); Gibson (Schneck); Hamilton (Wilson); Knox (Ridgway); Lake (Hill); Marion (Wilson); Miami (Gorby); Noble (Van Gorder); Posey (Schneck); Putnam (Wilson); Steuben (Bradner).

Additional records are: Laporte, Noble, Steuben and Wells (Deam).

Economic uses. Too rare and small to be of economic use.

4. *Salix álba* Linnæus. WILLOW. Plate 18. Bark on old trunks rough, thick, coarsely ridged, gray to brown; twigs smooth; winter buds 5-6 mm. ($\frac{1}{4}$ inch) long; narrowly ovoid, smooth and blunt; leaves lanceolate to oblong-lanceolate, 5-13 cm. (2-5 inches) long, long-pointed, narrowed at the base, hairy on both surfaces when young, becoming smooth or nearly so above at maturity, bright green above, paler or glaucous and persistently hairy beneath; petioles 4-8 mm. ($\frac{1}{8}$ - $\frac{1}{3}$ inch) long usually without glands, sometimes bearing a few near the base; flowers appear in April or May.

Variety **vitellina** (Linnæus) Koch, with yellow twigs, mature leaves glabrous above and whitish beneath, is the common form in our area.

Distribution. Introduced from Europe and now naturalized in many parts of the State. It is one of the largest of the genus and it is not uncommon to see trees in cultivation that are a meter (39 inches) in diameter.

The published records of the distribution are as follows: Clark (Baird and Taylor) and (Smith); Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Coulter) and (Young); Koscusko (Scott); Marion (Wilson); Noble (Van Gorder); Posey (Schneck); Putnam (MacDougal); Steuben (Bradner); Vigo (Blatchley).

Additional records are: Putnam (Grimes); Tippecanoe (Coulter); Posey and Wells (Deam).

PLATE 18.



SALIX ALBA Linnæus. WHITE WILLOW. (x $\frac{1}{2}$.)

Economic uses. Too rare to be of any economic use.

Horticultural value. Adapted to a moist soil, in which it grows very rapidly. Propagated either by cuttings or seedlings. It is used as a windbreak and is frequently planted for ornamental purposes.

2. PÒPULUS. THE POPLARS.

(From the Latin, *populus* the people; the trees used by the ancients along the highways.)

Rapidly growing trees; buds large, scaly and more or less resinous; leaves alternate, broad, toothed or sometimes lobed; flowers on pendulous catkins; anthers purple-red.

In the following key mature leaves from trees are considered:

- Winter buds cottony, leaves more or less lobed..... 1 *P. alba*.
- Winter buds not cottony, leaves with margins more or less regularly toothed.
 - Winter buds pubescent, appearing dusty; margins of leaves with 5 or less teeth per 25 mm. (1 inch).... 2 *P. grandidentata*.
 - Winter buds glabrous or nearly so; margins of leaves with 6 or more teeth per 25 mm. (1 inch).
 - Leaf blades blunt or rounded at the apex; shoots at first hoary becoming glabrous and brown..... 3 *P. heterophylla*.
 - Leaf blades sharp pointed at the apex; shoots smooth or with only a few hairs, becoming gray.
 - Apex of most of the leaves without teeth for about 5 mm. ($\frac{1}{4}$ inch); winter buds resinous and sticky, about 8 mm. ($\frac{1}{4}$ inch) long; stamens less than 15..... 4 *P. tremuloides*.
 - Apex of most of the leaves without teeth for about 10 mm. ($\frac{1}{2}$ inch); winter buds resinous but dry, about 12 mm. ($\frac{1}{2}$ inch) long; stamens more than 15..... 5 *P. deltoides*.

1. *Populus álba* Linnæus. SILVER-LEAF POPLAR. Plate 19. Bark on young trees smooth, greenish-white or gray, on old trees furrowed, gray or dark brown; young twigs hairy, becoming smooth in age; leaves ovate or triangular, 3-5 lobed or occasionally irregularly toothed, hairy on both surfaces while expanding, becoming dark green and glabrous above and remaining white-hairy beneath; stamens usually less than 15, flowering season, March, April or May.

Distribution. Introduced from Europe, now frequent in all parts of the State.

PLATE 19.



POPULUS ALBA Linnæus. SILVER-LEAF POPLAR. ($\times \frac{1}{2}$.)

The published records of the distribution are as follows: Delaware (Phinney); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Kosciusko (Clark); Marion (Wilson); Miami (Gorby); Posey (Schneck); Steuben (Bradner).

Additional records are: Putnam (Grimes); Franklin and Wells (Deam).

Horticultural value. Grows rapidly, adapted to all kinds of soil, though its preference is for a moist rich soil, propagated either by cuttings or seedlings, transplants easily, stands pruning well, commonly develops a broad and open crown, leaf period long and has few insect or fungous enemies. It is valued as a shade and ornamental tree. An objectionable character of this tree is its habit of sending up shoots from the roots.

2. *Populus grandidentata* Michaux. QUAKING ASP. COTTONWOOD. POPPLE. Plate 20. Bark smooth, grayish-green, becoming furrowed and dark brown on the trunks of old trees that grow in the northern part of the State, especially when found growing in swampy conditions. In the southern part of the State where the tree grows on the top of hills the bark does not darken so much and frequently remains a light gray to maturity or becomes only a dark gray color; shoots at first hairy, becoming smooth at the end of the season; leaves broadly ovate with large and irregular teeth, short pointed, truncate or slightly heart shaped at the base, hairy when expanding, smooth at maturity; petioles strongly flattened at right angles to the plane of the blade; staminate catkins 2-8 cm. (1-3 inches) long, the pistillate catkins at maturity reaching 6-12 cm. (2¼-5 inches) in length; stamens less than 15; flowering season March, April or May. Trees usually about 10-20 m. (30-65 feet) high and less than 4 dm. (16 inches) in diameter.

Distribution. Nova Scotia, Ontario and northern Minnesota, southward to the Ohio River and along the Alleghany Mountains south to North Carolina. Locally distributed in all parts of Indiana. It is frequent or common in swamps, along the border of streams or in drier situations. In the northern part of the State it is generally found in moist conditions and exceptionally found in dry situations, while in the southern part of the State it is found either in moist conditions along streams or in dry situations such as the tops of hills. In Montgomery County along Sugar Creek it was noted on a high ridge associated with the hemlock. In moist conditions along streams it is usually found growing in colonies. When

PLATE 20.



POPULUS GRANDIDENTATA Michaux. LARGE-TOOTHED ASPEN. ($\times \frac{1}{2}$.)
Leaf in upper part of plate is a form often found on seedlings or shoots.

found on hillsides and hill tops there are usually only a few individuals, which indicates that the preference of the species is for moist soil conditions.

The published records of the distribution are as follows: Clark (Smith); Clay (Wilson); Delaware (Phinney); Franklin (Meyncke); Gibson (Schneck); Hamilton (Wilson); Knox (Ridgway); Kosciusko (Clark) and (Scott); Putnam (Wilson); Steuben (Bradner).

Additional records are: Crawford (Schneck); vicinity of New Albany (Clapp); Putnam (Grimes) and (MacDougal); Tippecanoe (Coulter); Clark, Decatur, Fulton, Jennings, Marshall, Monroe, Montgomery, Noble, Owen, Porter, Posey, Steuben, Vermillion, Warren and Wells (Deam).

Economic uses. Wood soft, light and not strong. Used principally for pulp and excelsior. The supply in Indiana is so limited as to be of no economic importance. The pioneers were accustomed to cut small quaking aspens into convenient sizes for tying in the stalls of their stables in order that their horses might gnaw off the bark which contains a bitter tonic principle.

3. *Populus heterophylla* Linnæus. LARGE-LEAVED COTTONWOOD. Plate 21. Bark deeply furrowed, the furrows as wide as the ridges, reddish-brown; winter buds glabrous or with a few hairs, slightly resinous, about 6 mm. ($\frac{1}{4}$ inch) long; leaves ovate, 7-15 cm. (3-6 inches) long, cordate or truncate at the base, velvety when young gradually becoming glabrous above and paler beneath and remaining somewhat pubescent, especially along the conspicuous veins, petioles round or but little flattened; flowering season March or April.

Distribution. Connecticut south to Georgia and west to Louisiana and Missouri. In Indiana it is rare and local, except in the lower Wabash bottoms, where it is frequent or common around ponds and in sloughs. It grows in low woods and swamps. A medium sized tree, usually about 15-25 m. (48-80 feet) high and less than 5 dm. (20 inches) in diameter.

The published records of the distribution are as follows: Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Meyncke); Gibson (Schneck); Hamilton (Doane); Jay (M'Caslin); Knox (Ridgway); Miami (Gorby); Posey (Schneck); Vigo (Blatchley).

Additional records are: Blackford, Laporte, Posey and Wells (Deam).

Economic uses. Too rare to be of any economic importance.

PLATE 21.



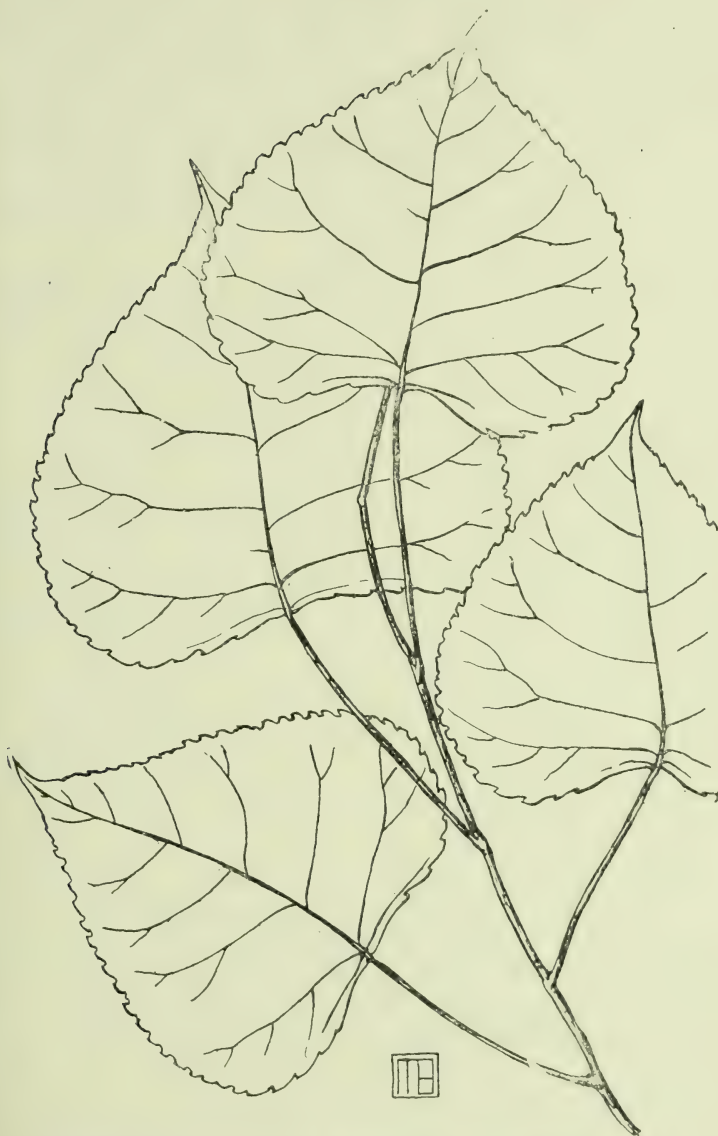
POPULUS HETEROPHYLLA Linnaeus. LARGE-LEAVED COTTONWOOD. ($\times \frac{1}{2}$.)

PLATE 22.



POPULUS TREMULOIDES Michaux. QUAKING ASP. ($\times \frac{1}{2}$.)
Leaves in upper part of plate show forms on seedlings, root or coppice
shoots.

PLATE 23.



POPULUS DELTOIDES Marshall. COTTONWOOD. (x $\frac{1}{2}$.)

4. *Populus tremuloïdes* Michaux. COTTONWOOD. QUAKING ASP. Plate 22. Bark usually smooth, greenish-white or gray, turning an ash color on age and on old trees becoming rougher or fissured and much darker; twigs smooth or with a few hairs, reddish-brown, shiny the first season, gradually turning gray; leaves 3-9 cm. ($1\frac{1}{2}$ -4 inches) long; usually wider than long, dark green above, lighter beneath, more or less pubescent when young, soon becoming glabrous, petioles flattened; catkins at first 3-7 cm. (1-3 inches) long, the fertile gradually increasing in length to about 10 cm. (3 inches). Usually a small tree, 30-45 feet high, and less than 3 dm. (12 inches) in diameter.

Distribution. Alaska and Hudson Bay south to the Ohio River and along the mountains of Mexico. Found in all parts of Indiana, becoming rare or infrequent towards the Ohio River. It is found usually in colonies in open places about swamps, lakes and along streams.

The published records of the distribution are as follows: Clark (Baird and Taylor); Dearborn (Collins); Decatur (Ballard); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Meyncke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter); Knox (Ridgway); Kosciusko (Clark), (Scott) and (Youse); Marion (Wilson); Miami (Gorby); Noble (Van Gorder); Posey (Schneck); Putnam (MacDougal); Steuben (Bradner); Vigo (Blatchley).

Additional records are: Putnam (Grimes); Tippecanoe (Coulter); Allen, Lake, Laporte, Marshall, Porter, Steuben, Warren and Wells (Deam).

Economic uses. Not of sufficient size and abundance to be of much economic importance.

5. *Populus deltoides* Marshall. COTTONWOOD. Plate 23. Bark on old trees ash colored, deeply furrowed; branchlets round or those on vigorous trees angled, glabrous, yellowish-green becoming gray; leaf blades 4-12 cm. ($1\frac{1}{2}$ -5 inches) long, usually about as wide, coarsely toothed, teeth glandular, incurved, lateral veins prominent on both sides, petioles flattened; flowering season March. April or May.

Distribution. Quebec to Florida and west to the Rocky Mountains. Frequent in low woods and along streams in all parts of Indiana. The largest tree of the genus, usually 1-1.6 m. (3-5 feet) in diameter. In the original forests it was one of the largest of Indiana trees.

The published records of the distribution are as follows: Clark (Baird and Taylor); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Young); Knox (Thomas); Kosciusko (Clark); Marion (Wilson); Miami (Gorby); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wayne (Pettry and Markle).

Additional records are: Montgomery (Evans); vicinity of New Albany (Clapp); Putnam (Grimes) and (MacDougal); Tippecanoe (Coulter); Hancock, Knox, Laporte, Marshall, Owen, Posey and Wells (Deam).

Economic uses. Heart wood thin, dark brown, sap wood thick, nearly white, light, soft, weak, and warps badly in drying. Used principally for siding, sheeting, heading, wagon boxes, shelving, excelsior and pulp. The lumber has been such a favorite on account of its lightness that the supply has been nearly exhausted.

Horticultural value. A stately tree, adapted to a moist soil, propagated either from cuttings or seedlings, grows very rapidly, developing a full wide and rounded top with a few large ascending branches. Frequently planted for a quick shade producing tree and for wind breaks, and well adapted to the planting of areas that frequently overflow.

A horticultural form of this species is sold as Carolina poplar. No greater mistake can be made in tree culture than in planting the Carolina poplar. While in its first years it grows rapidly and has a handsome foliage, it very soon acquires practically every undesirable tree habit. It should never be used unless as a temporary shelter for more valuable forms which are intended to be permanent.

JUGLANDACEÆ. THE WALNUT FAMILY.

Trees with leaves alternate, odd pinnate, large and aromatic; flowers appearing after the leaves unfold, the staminate in catkins, the pistillate solitary or in clusters; fruit a nut in a fleshy or hard fibrous shell; kernel edible or astringent.

Pith medium brown, interrupted by transverse sections;
sterile catkins thick, sessile, or short stalked; stamens 8-40; nuts with a network of rough projections. . . 1 *Juglans*.

Pith light brown, not interrupted by transverse partitions; sterile catkins slender, long stalked; stamens 3-10; nuts more or less angled but smooth. 2 *Hicoria*.

1. JÜGLANS. THE WALNUTS.

Trees with furrowed bark; terminal buds with two pairs of opposite, more or less open scales.

- Bark gray, the ridges smooth; upper part of leaf scar of the last year's twigs with a mat of hairs; fruit oblong, husk clammy..... 1 *J. cinerea*.
 Bark dark brown or black, rough; upper part of leaf scar of the last year's twigs without a mat of hairs; fruit orbicular, husk not clammy..... 2 *J. nigra*.

2. *Juglans nigra* Linnæus. WALNUT. BLACK WALNUT. Plate 24. Leaves 3-7 dm. (12-28 inches) long, mature leaves glabrous above, pubescent below, leaflets 11-23, 4-10 cm. (1½-4 inches) long, half as wide; flowers appear in May or June; fruit ripens in September and October; nut nearly round, somewhat flattened, 3-4 cm. (1¼-1½ inches) through the widest diameter, kernel edible and by some regarded as the best of Indiana's nuts.

Distribution. Ontario south to the Gulf States and west to Nebraska and Texas. It was more or less frequent to common in all all parts of Indiana in well drained alluvial soil. On account of the value of the nuts and wood the landowner usually permits the walnut to grow, so small trees are yet found in considerable numbers along streams, in open woods and along fences where the nuts have been carried by rodents. In the forest it develops into a tall straight tree with a few large branches for a top, while in the open it develops a wide-spreading crown.

The published records of the distribution are as follows: Carroll (Thompson); Cass (Benedict and Elrod) and (Coulter); Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (McCaslin); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Clark) and (Youse); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod); Wayne (Petry and Markle).

Additional records are: Montgomery (Evans); Putnam (Grimes); Tippecanoe (Coulter); Blackford, Decatur, Delaware, Hamilton, Hancock, Johnson, Owen, Posey, Wells (Deam).

Economic uses. Wood heavy, hard, strong, rather coarse, heart wood a rich dark brown, works easily, takes a high polish, care

PLATE 24.

JUGLANS NIGRA Linnæus. BLACK WALNUT. (X $\frac{1}{2}$.)

must be taken in seasoning to prevent checking, durable in contact with the ground. The wood of this tree is the most valuable of any of the Indiana forest trees and for this reason the supply has been almost exhausted. There are yet isolated trees and small areas which contain a few valuable trees which the owners are holding for advanced prices. It is used principally for furniture, office fixtures and gun stocks.

Horticultural value. Adapted to a moist rich soil, grows rapidly, has a long tap root, which makes it difficult to transplant, best propagated by planting the nuts or germinated nuts. It is not well adapted to shade tree purposes because the leaves do not make a thick shade, appear late and fall early, although it could be planted to good advantage along roadsides. This species gives promise of being one of the most valuable for the purpose of reforestation in this State.

1. *Juglans cinèrea* Linnæus. BUTTERNUT. WHITE WALNUT. Plate 25. Leaves 3-6 dm. (12-24 inches) long, leaflets 7-17, 6-12 cm. (2½-5 inches) long, lanceolate to oblong, short stalked, clammy pubescent when young; flowers appear in May or June; fruit ripens in October, 4-8 cm. (1½-3 inches) long, with four prominent longitudinal ridges; kernel sweet and very oily.

When grown in the forest it is a tall straight tree, attaining a height of 20-30 m. (65-95 feet) and 6-9 dm. (2-3 feet) in diameter.

Distribution. Valley of the St. Lawrence River south to the Gulf States and west to Nebraska. Found in all parts of Indiana, though very sparingly in some counties. In its distribution it is usually found along streams, in ravines, and in two instances it has been noted in old tamarack marshes. It is usually found in well drained, gravelly soil. It must be regarded as infrequent and only in a few localities has it been noted as frequent or common.

The published records of the distribution are as follows: Carroll (Thompson); Cass (Benedict and Elrod); Clark (Baird and Taylor), (Barnes) and (Smith); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Coulter) and (Young); Knox (Thomas); Kosciusko (Clark); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod).

Additional records are: Putnam (Grimes), (Lewis and Bridges) and (MacDougal); Tippecanoe (Coulter); Brown, Delaware, Fulton, Hamilton, Hancock, Johnson, Madison, Morgan, Montgomery, Porter, Wells (Deam).

PLATE 25.



JUGLANS CINEREA Linnæus. BUTTERNUT. (x $\frac{1}{2}$.)

Economic uses. Wood light, soft, not strong, coarse-grained, sap wood nearly white, heart wood light brown and takes a good polish. Uses similar to that of a black walnut. The bark of the root is used in medicine as a hepatic stimulant.

Horticultural value. Adapted to a moist rich soil. When grown in the open it usually develops a short trunk with a wide-spreading top. It is frequently planted along roadsides and on the borders of orchards for its nuts.

2. HICÒRIA. THE HICKORIES.

The range of the hickories is eastern North America from the valley of the St. Lawrence south to Mexico. Trees with strong, elastic and compact wood; bark on old trunks very hard, fissured, tight or scaly; branches flexible, difficult to break off; leaves glandular dotted; leaflets serrate and usually unequal at the base, lowest pair the smallest, upper pair and terminal the largest; fruit sessile or nearly so, a bony nut surrounded by a woody husk which separates more or less completely into 4 parts. The individuals of the several species vary much in respect to their bark, pubescence of the twigs, number and size of the leaflets and size and shape of the nuts.

Bud scales 4-6, valvate (in pairs).

Leaflets 9-17, generally about 13; nut elongated, circular in cross-section, kernel sweet..... 1 H. Pecan.

Leaflets 5-9, generally 5-7; nut about as broad as long, elliptic in cross-section, kernel bitter..... 2 H. cordiformis.

Bud scales more than 6, imbricated (not in pairs).

Bark of trees shaggy, separating in long flat plates, at least from about 4 m. (13 feet) above the ground upward.

Husk of fruit thick, more than 2.5 mm. (about $\frac{1}{8}$ inch) thick.

Leaflets 3-5, generally 5; shell of nut thin, nut generally less than 3 cm. (1 inch) long, usually about 2.5 cm. ($\frac{7}{8}$ inch) long..... 3 H. ovata.

Leaflets 5-9, generally 7; shell of nut thick, nut generally more than 3 cm. (about 1 inch) long, usually about 4 cm. ($1\frac{1}{2}$ inches) long..... 4 H. laciniosa.

Husk of fruit thin, less than 2.5 mm. ($\frac{1}{8}$ inch) thick... 5 H. microcarpa.

Bark of trunk fissured, not separating in long flat plates.

Bark generally light gray, husk thick and freely splitting to the base or nearly so, shell of nut thick..... 6 H. alba.

Bark generally dark gray, brown or nearly black; husk not very thick, not splitting freely to the base, shell of nut rather thick..... 7 H. glabra.

The species of this genus are very variable, and it is acknowledged that the present treatment of the genus is not satisfactory. A full understanding of the genus in Indiana would require much field study and more herbarium material than is available at the present time.

1. *Hicoria Pecán* (Marshall) Britton. PECAN. (*Carya illinoensis* (Wangenheim) K. Koch.) Plate 26. Bark tight, rather deeply fissured, ridges narrow, high up on old trees becoming somewhat scaly, light brown tinged with red; twigs at first hairy, becoming smooth or nearly so and reddish-brown by the end of the season; the terminal winter buds compressed, about 12 mm. ($\frac{1}{2}$ inch) long, covered with yellowish scales, the lateral buds much smaller; leaves 3-5 dm. (12-20 inches) long; leaflets 9-17, ovate to oblong lanceolate, somewhat curved backward, 7-15 cm. ($2\frac{3}{4}$ -6 inches) long, rounded or wedge-shaped at the unequal base, long taper-pointed at the apex, short stalked, hairy when they unfold, becoming at maturity smooth or nearly so, a dark green above and a yellow green beneath; staminate catkins sessile or nearly so; fruit in clusters of 3-11, oblong, 3.5-6 cm. ($1\frac{3}{8}$ - $2\frac{3}{8}$ inches) long, the sutures of the husk splitting to below the middle; nut ovoid to ovoid oblong, reddish-brown.

Distribution. In the Mississippi Valley from Iowa south to Alabama and Texas. In Indiana it is found only in the southwestern part of the State. In our area it is generally confined to the low lands of the water courses, following the Wabash River up as far as four miles south of Covington in Fountain County*, the Ohio River up as far as Jefferson County, the south fork of White River up as far as Seymour in Jackson County and the north fork up as far as Greene County. It is frequent to very common in the lower Wabash bottoms, diminishing in numbers as the water courses are ascended.

The published records of the distribution are as follows: Delaware, Jay, Randolph and Wayne (Phinney)**; Franklin (Meyncke)***; Gibson (Schneck); Jefferson (Young); Knox (Thomas); Posey (Schneck); Vigo (Blatchley).

Additional records are: Posey (Deam) and (Wright).

Economic uses. Wood heavy, hard, not strong and light reddish-brown. The wood is the least valuable of all the hickories, although commercially it is frequently classed with the other hickories. Uses same as that of the other hickories. The nuts are an important article of commerce.

*Ind. Geol. Rept. 11:122, pub. 1882.

**Mr. Phinney says this was an error.

***No doubt from a cultivated tree.

PLATE 26.

HICORIA PECAN (Marshall) Britton. PECAN. ($\times \frac{1}{2}$.)

PLATE 27.



HICORIA CORDIFORMIS (Wagenheim) Britton. PIGNUT HICKORY.
(x $\frac{1}{2}$.) (Fruit, x 1.) (Cross section of nut, (x $\frac{1}{2}$.)

Horticultural value. The pecan like the other hickories develops a large tap root, which makes it difficult to transplant. It should be propagated if possible by planting germinated nuts. It is the most rapid in growth of any of the hickories. The cultivation of the pecan for the nut crop has received considerable attention in the Gulf States for many years and improved varieties have been secured by selection. Pecan culture has proven profitable in the southern States, especially when the improved varieties have been grown.

It is doubtful if pecan culture would prove profitable in Indiana, since when the cost of production in Indiana is compared with that of the Gulf States it will be found that our land is much higher in price, labor, which is an important item, is also much higher priced and that the crop is more liable to fail on account of climatic conditions.

Information from reliable people who reside in Posey County and who are familiar with the fruiting of the pecan in that part of the country, shows that only about one-fourth of the native trees ever bear fruit, and only about one out of every ten trees is a profitable nut bearing tree. While a few trees bear nuts every year, it is, however, the exception. They say, also, that the winters in Indiana are too severe to make pecan culture profitable.

2. *Hicoria cordiformis* (Wangenheim) Britton. PIGNUT. PIG HICKORY. TIGHT BARK HICKORY. (*Carya cordiformis* (Wangenheim) K. Koch.) Plate 27. Bark on the trunk thin, tight, usually a light gray, sometimes darker, with shallow fissures, rarely separating into thin, short plates; twigs at first greenish, somewhat hairy, soon becoming smooth or nearly so and a yellowish-brown, often a reddish-brown by the end of the season, becoming before the leaves appear usually a light gray brown or the same tinged with red; winter buds oblong-ovoid, flattened, taper-pointed and oblique at the apex, scales 4-6, in pairs, valvate, covered with yellow glandular scales, somewhat pubescent; leaves 1.5-2.5 dm. (6-10 inches) long, petioles and main axis more or less pubescent; leaflets 5-9, lanceolate to oblong or obovate, 4-15 cm. (2-6 inches) long, more or less curved, sessile or the terminal one sometimes stalked, narrowed to the oblique base, taper-pointed, yellow green and smooth above at maturity, paler and more or less pubescent beneath especially along the prominent veins, generally covered with glands; fruit globose or slightly obovoid, 2-3.5 cm. ($1\frac{1}{4}$ -1 $\frac{1}{4}$ inches) long, generally 4-winged from the apex to about the middle, sometimes the wings extend nearly to the base, more or less thickly covered

with a yellow scurfy pubescence; husk about 1.5 mm. (1/16 inch) thick, tardily separating to about the middle; nut ovoid, oblong or obovoid, slightly flattened, often as wide or wider than long, depressed or obcordate with a short or long point at the apex, ovoid at the base, smooth; shell very thin and brittle; kernel very bitter. This hickory can easily be distinguished from all the other species either in winter or summer by its yellow bud scales.

Distribution. Quebec to Minnesota, south to the Gulf States and west to Texas. Found throughout Indiana, but nowhere abundant. It is more or less frequent in rich soil along streams and in moist rich woods. Usually associated with the shellbark hickory, burr oak and ash.

The published records of the distribution are as follows: Carroll (Thompson); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Knox (Ridgway); Marion (Wilson); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wayne (Petty and Markle).

Additional records are: Monroe (Blatchley); Montgomery (Thompson); Posey (MacDougal and Wright); Putnam (Grimes); Tippecanoe (Coulter); Adams, Delaware, Hamilton, Jennings, Knox, Montgomery, Owen, Vermillion, Warren and Wells (Deam).

Economic uses. Wood heavy, very hard, strong, tough, close-grained and dark brown, the sap wood white, about 1½ inches thick at 25 years of age. It is used principally in the manufacture of vehicles, furnishing the spokes, rims, poles, shafts, single and double trees. It is also used for fuel.

3. *Hicoria ovata* (Miller) Britton. SHELLBARK HICKORY. SCALYBARK HICKORY. RED HICKORY. (*Carya ovata* (Miller) K. Koch.) Plate 28. Bark of trunk separating in thin, long, flat plates, light gray, sometimes rather dark; twigs at first covered with hairs, becoming smooth at the end of the season or remaining hairy, a reddish-brown; winter buds hairy, the terminal one ovoid, blunt, about 16 mm. (5/8 inch) long, the outer scales sharp-pointed, dark brown, deciduous before spring, when the inner scales are exposed they are a yellow green, hairy and blunt; leaves 2-3.5 dm. (8-14 inches) long, main axis hairy or sometimes smooth; leaflets generally 5, rarely 7, ovate to ovate-lanceolate or obovate, 10-18 cm. (4-7 inches) long, the lateral sessile, the terminal one obovate and short stalked, wedge-shaped at the base, generally long taper-pointed at the apex, margins finely serrated, when they unfold covered above with yellow scales, hairy on the margins and beneath

PLATE 28.



HICORIA OVATA (Miller) Britton. SHELLBARK HICKORY. ($\times \frac{1}{2}$.)

at least on the veins, becoming at maturity firm, smooth and a yellow green above, paler and smooth or somewhat pubescent beneath; fruit subglobose or obovate, depressed at the apex, furrowed along the sutures, especially above the middle, usually 3-4 cm. (1-1½ inches) in diameter from the apex to the base; husk freely splitting to the base, rarely not splitting freely, generally about 8 mm. (¼ inch) thick; nut exceedingly variable in size and shape, varying from oblong, subglobose, ovate, to obovate, sometimes wider than long, rounded or pointed at the base, generally pointed at the apex, sometimes rounded or obcordate, smooth or angular; shell generally thin, sometimes rather thick, or very thin; kernel uniformly sweet.

Distribution. Valley of the St. Lawrence west to Minnesota, south to Florida and west to Texas and Kansas. In Indiana it is frequent to common in all parts of the State in moist rich soil along streams, in the bottom lands or in dryer soil on hillsides. It is generally associated with the other hickories, sugar maple, white ash, red oak, linn and slippery elm. In the forest it is a tall, straight tree with a few main branches for the crown. In the open the side branches do not shade off and it is medium in height with a long and wide-spreading crown.

The published records of the distribution are as follows: Cass (Coulter); Clark (Baird and Taylor); Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Knox (Ridgway) and (Thomas); Kosciusko (Clark) and (Scott); Marion (Wilson); Posey (Schneck); Vigo (Blatchley); Wayne (Petty and Markle).

Additional records are: Jefferson (Young); Monroe (Blatchley); Montgomery (Evans); Posey (MacDougal and Wright); Putnam (Grimes) and (MacDougal); Tippecanoe (Coulter); Clark, Delaware, Hamilton, Jennings, Owen, Posey Steuben and Wells (Deam.)

Economic uses. Wood heavy, very hard and strong, close-grained, flexible, light brown, sap wood white and thin. Used principally for carriage and wagon stock, agricultural implements, ax-handles and fuel. The nuts are delicious and command a good price.

The pioneers were accustomed to bind the long plates of bark together for use as torches. It is recorded that many eminent men of the past gained their education by the light of the hickory torch. It was a favorite way of the fishermen to light up the surface of the water so that they could spear fish.

4. **Hicoria laciniòsa** (Michaux) Sargent. BIG SHELLBARK HICKORY. BIG SCALY-BARK HICKORY. HARD-HEAD HICKORY. (*Carya laciniòsa* (Michaux fil.) Loudon). Plate 29. Bark on the trunk gray, separating into long plates, twigs stout, at first hairy, yellowish, becoming smooth or nearly so, buff or nearly orange color, which is peculiar to this tree, frequently retaining the leaf stalks of the leaves of the previous year; terminal bud large, ovoid, blunt, about 2 cm. ($\frac{3}{4}$ inch) long, outer scales brown, usually a dark brown, pubescent, generally keeled especially toward the apex, the lower pointed and nearly triangular in shape, outer scales persisting throughout the winter; leaves 2.5-5 dm. (10-20 inches) long, petioles and main axis more or less pubescent, leaflets 5-9, usually 7, ovate to oblong-lanceolate or obovate, the largest 1-2 dm. (4-8 inches) long, the lateral ones rounded and oblique at the base, the terminal one wedge-shaped at the base, all long taper-pointed at the apex, finely serrate, the lateral ones sessile, the terminal sessile or on a short stalk, hairy beneath when they unfold, becoming thick and a deep green above and remaining densely velvety hairy beneath, especially along the principal veins; fruit ovate, subglobose, oblong, or obovate, depressed at the apex, 5-8 cm. (2-3 inches) long, somewhat grooved along the sutures, especially towards the apex; nut broadly oblong or often obovate, usually longer than broad, sometimes broader than long, flattened, blunt or sharp-pointed at either end, the obovate type usually rounded or notched at the apex, and smoother than the oblong type, which generally has 4-6 sharp ridges; shell generally 2-3 mm. (about $\frac{1}{8}$ inch) thick at the thinnest points; kernel very sweet.

Distribution. New York west to Iowa, south to Tennessee and west to Arkansas and Kansas. No study of the distribution of this species in the extreme northwestern part of the State has been made, but in the other parts it is more or less frequent in bottom lands and in moist rich woods. It is generally associated with the preceding species, preferring somewhat moister situations. It so much resembles the preceding species in general appearance that it is not commonly separated from it.

The published records of the distribution are as follows: Carroll (Thompson); Clark (Smith); Dearborn (Collins); Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Meyneke); Gibson (Schneck); Jefferson (Coulter) and (Young); Knox (Ridgway); Kosciusko (Clark); Miami (Gorby); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley).

PLATE 29.



HICORIA LACINIOSA (Michaux) Sargent. BIG SHELLBARK HICKORY.
(x $\frac{1}{2}$.)

Additional records are: Putnam (Grimes); Tippecanoe (Coulter); Harrison, Marion, Posey, Vermillion and Wells (Deam).

Economic uses. Wood and uses the same as the preceding.

5. *Hicoria microcarpa* (Nuttall) Britton. (*Carya microcarpa* Nuttall.) Plate 30. Bark fissured and rather tight on the trunk near the base, becoming more or less shaggy a short distance above the ground, the lower part of the trunk resembling that of *Hicoria glabra* (Black Hickory), the upper part that of *Hicoria ovata* (Shell-bark Hickory); twigs slender, becoming at the end of the season smooth, reddish-brown; winter buds ovoid, the terminal one at fruiting time 6-10 mm. (about $\frac{1}{4}$ inch) long; scales densely covered with small yellow scales, more or less pubescent especially along the margins, the outer usually almost glabrous, blunt or the outer somewhat sharp-pointed; leaves 2-3 dm. (8-12 inches) long, main axis at maturity smooth or nearly so; leaflets 3-7, usually 5, oval to oblong-elliptic, the lateral ones sessile, the terminal one short-stalked, long taper-pointed, at maturity light green and smooth above, paler and smooth beneath or with some pubescence in the axils of the veins and on the veins; fruit subglobose or obovoid, densely covered with yellow scales, sutures elevated; husk thin, about 1.5 mm. ($\frac{1}{16}$ inch) thick, somewhat tardily splitting to nearly the base; nut oval, somewhat angular, sharp-pointed at each end, about 1.5 cm. ($\frac{1}{2}$ inch) long, about as wide through the widest diameter, compressed; shell thin; kernel sweet. In the northern part of the State a form is found with a nut about one-fourth longer in diameter, obovoid, nearly smooth, rounded at both ends or obcordate at the apex. Another form was noted associated with the two forms above, with bud scales and twigs very pubescent, husk of fruit about one-third thicker, and shell of nut as thick as *Hicoria ovata*.

Distribution. Massachusetts west to Michigan and south to Missouri and Georgia. More or less frequent throughout Indiana and associated with *Hicoria ovata*. The habitat and range of this species has not been well studied.

The published records of the distribution are as follows: Clark (Baird and Taylor); Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Meyncke); Gibson (Ridgway) and (Schneck); Hamilton (Wilson); Jefferson (Coulter) and (Young); Knox (Ridgway); Kosciusko (Scott); Marion (Wilson); Miami (Gorby); Posey (Schneck).

Additional records are: Posey (MacDougal and Wright); Tippecanoe (Coulter); Laporte, Vermillion, Warren and Wells (Deam).

Economic uses. Wood and uses same as that of the shellbark hickories.

PLATE 30.



HICORIA MICROCARPA (Nuttall) Britton. SMALL FRUITED HICKORY.
(x $\frac{1}{2}$.) (Nut, x 1.)

6. *Hicoria álba* (Linnæus) Britton. WHITE HICKORY. (*Carya álba* (Linnæus) K. Koch). Plate 31. Bark of trunk tight, never scaly, fissured, furrows shallow, light gray; twigs at first densely hairy, becoming at the end of the season reddish-brown, finally a dark gray, remaining more or less pubescent during the season; winter buds ovoid, the terminal one at time of fruiting about 12 mm. ($\frac{1}{2}$ inch) long; outer scales broadly ovate and pointed, hairy, dark or reddish-brown; leaves fragrant, 2-3.5 dm. (8-14 inches) long, main axis hairy; leaflets 5-9, generally 7, sessile or the terminal one on a short stalk, oblong-lanceolate to obovate-lanceolate, taper-pointed at the apex, hairy when they unfold, becoming at maturity firm, smooth and a dark yellow green above, paler or brownish beneath, and remaining more or less densely hairy, especially along the veins; fruit subglobose, elliptic, generally about 4 cm. ($1\frac{1}{2}$ inches) long, the sutures depressed, husk thick, splitting to the base or nearly so; nut globose, or elliptic, rounded at the base, rounded or short-pointed at the apex, generally smooth, with the angles obscure except at the apex; shell thick; kernel sweet.

Distribution. Southern Ontario south to Florida and west to Texas and Kansas. Well distributed throughout Indiana but nowhere abundant. In the northern part it is rather rare, becoming more or less frequent in the southern part especially in the southwestern part. It is generally found in drier situations than the preceding species and of the hickories it is the most frequently associated with *Hicoria glabra* (Black Hickory).

The published records of the distribution are as follows: Cass (Benedict and Elrod); Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Fountain (Brown); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Coulter) and (Young); Knox (Ridgway); Kosciusko (Clark) and (Scott); Marion (Wilson); Miami (Gorby); Posey (Schneck); Vigo (Blatchley); Wabash (Benedict and Elrod).

Additional records are: Tippecanoe (Coulter); Gibson and Posey (Deam).

Economic uses. Wood and uses similar to that of the shellbark hickory.

7. *Hicoria glàbra* (Miller) Britton. BLACK HICKORY. PIGNUT HICKORY. (*Carya glabra* (Miller) Spach.) Plate 32. Bark of trunk generally a dark gray, varying to nearly black, from whence its most common name, fissured, furrows narrow and rather deep on old trunks, the ridges rather broad and somewhat scaly on old trunks but not flaking off; twigs slender, often hairy at first, becom-

PLATE 31.



RICORIA ALBA (Linnaeus) Britton. WHITE HICKORY. ($\times \frac{1}{3}$.) (Twig.
 $\times \frac{1}{2}$.) (Nut and cross section, $\times 1$.)

PLATE 32.



HICORIA GLABRA (Müller) Britton. BLACK HICKORY ($\times \frac{1}{2}$.)
(Twig with buds, $\times 1$.)

ing glabrous and reddish-brown; winter buds ovoid, the terminal one about 6 mm. long at fruiting time and about 8 mm. ($\frac{1}{4}$ inch) in March, scales pointed, light or reddish-brown, more or less pubescent; leaves 1.5-3 dm. (6-12 inches) long, main axis smooth or nearly so; leaflets 3-9, generally 5 or 7, the lateral sessile, the terminal short stalked, 6-15 cm. ($2\frac{1}{4}$ -6 inches) long. taper pointed at the apex, hairy at first, becoming at maturity glabrous and a dark yellow-green above, paler or a yellow-brown and smooth or with a few hairs in the axils of the veins beneath; fruit generally obovoid, varying to subglobose or elliptic, generally about 3-4 cm. (about $1\frac{1}{4}$ inches) long, sutures elevated, usually somewhat depressed at the apex, husk rather thin, tardily separating, usually to nearly the middle, sometimes merely breaking open; nut varying from obovoid to elliptic, generally smooth, sometimes depressed both ways with rounded angles, tapering at the base, generally rounded at the apex, sometimes sharp-pointed; shell rather thick; kernel sweet or astringent.

The species is quite variable and some forms are found which show great variation. The following is given as an example. Deam's numbers 9,214 and 10,241 were taken from a tree in an open dry woods on the farm of Dr. J. Gardner, about four miles southwest of Bedford. The tree is about 3 dm. (12 inches) in diameter and has long branches, drooping almost to the ground. Bark of trunk nearly black, deeply fissured, the furrows about 4.5 cm. ($1\frac{3}{4}$ inches) deep, twigs at first densely covered with hairs, rarely somewhat smooth at maturity; terminal buds ovoid, rather blunt, 1-2 cm. (about $\frac{5}{8}$ inch) long at fruiting time, outer scales deciduous, rather blunt, reddish brown, covered with scales and densely hairy, inner scales light brown and silky; leaves 2-4 dm. (8-16 inches) long, main axis stout and densely covered with brown hairs even at maturity; leaflets 7 or 9, lanceolate-oblong to lanceolate-obovate, 5-18 cm. (2-7 inches) long, firm at maturity, dark green and smooth above, paler and a yellow-green below, and thickly covered with brown hairs; fruit subglobose, covered with yellow scales and somewhat hairy, about 2.5 cm. (1 inch) long; husk rather thick, tardily splitting to about the middle or below; nut globose, rounded at both ends, scarcely angled; shell thick; kernel sweet. This tree agrees very well with the description of variety **odorata**.

Distribution. Maine west to Nebraska, south to Florida and west to Texas. Found throughout Indiana. Rare or frequent in the northern counties, frequent in almost all the southern counties, and in cut over land in the southern counties it is often the prin-

cial stand on the hills. It is the most frequently associated with the white and black oaks. Often in our area the greater part of the trunk is too burly to be used for other than for fuel purposes.

The published records of the distribution are as follows: Cass (Benedict and Elrod); Carroll (Thompson); Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Haymond) and (Meyncke); Gibson (Schneck); Hamilton (Wilson); Jay (McCaslin); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Marion (Wilson); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod).

Additional records are: Putnam (Grimes) and (MacDougal); Tippecanoe (Coulter); Delaware, Owen, Posey and Warren (Deam).

Economic uses. Wood and uses similar to that of the shell bark hickory.

BETULACÆÆ. THE BIRCH FAMILY.

Trees or shrubs with watery juice; leaves alternate (in pairs on the older branches of *Betula*,) pinnately-veined; flowers of two kinds, the staminate in long catkins, 1-3 together, the pistillate in short catkins; fruit a nut or samara.

Staminate flowers solitary in the axil of each bract, without a calyx, pistillate flowers with a calyx; nut more or less inclosed in the involueral bracts, wingless.

Staminate aments in winter enclosed with bud scales; bark of tree smooth and close, gray; pistillate involueral bracts foliaceous at maturity, flat, and more or less irregularly 3-cleft..... 1 *Carpinus*.

Staminate aments naked in winter, appearing in threes at the ends of the branches; bark of trunk shreddy, grayish-brown; pistillate bracts growing together at maturity and enclosing the nut..... 2 *Ostrya*.

Staminate flowers 3-6 in the axil of each bract, with a calyx, pistillate without a calyx; nut winged.

Stamens 2, pistillate aments solitary, hop-like and papery at maturity; winter-buds covered with scales; bark on old trees separating in flakes or scales..... 3 *Betula*.

Stamens 4, pistillate aments racemose, woody at maturity; winter buds without scales; bark on old trees not separating in flakes..... 4 *Alnus*.

1. **CARPINUS.** THE HORNBEAM.

(Carpinus is derived from the Celtic words *car*, wood and *pin*, the head; referring to the fact that the wood was used for the yokes of cattle.)

Carpinus caroliniana Walter. WATER BEECH. BLUE BEECH. SWAMP BEECH. Plate 33. Trees with fluted or ridged trunks;

PLATE 33.



CARPINUS CAROLINIANA Walter. BLUE OR WATER BEECH. (x $\frac{1}{2}$.)

bark smooth, close, gray; leaves ovate to oblong, short to long pointed, double-serrate, sometimes unequal-sided, hairy when young, glabrous at maturity except on the veins beneath, pubescence not

glandular; flowering season April or May, staminate catkins 2-3 cm. ($\frac{3}{4}$ -1 $\frac{1}{8}$ inches) long, appearing early in the spring on the sides of the twigs of the previous season; pistillate catkins 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch) long, on the shoots of the season; nut ovate, about 5 mm. ($\frac{1}{5}$ inch) long, somewhat compressed, each face with 4-6 prominent ribs.

Distribution. Northern Minnesota and southern Quebec, south to the Gulf States and west to Texas and Kansas. It is frequent in all parts of Indiana in moist rich soil. The proximity of streams apparently has little influence on its distribution. It is quite tolerant in its moisture requirements, ranging from the tamarack bogs to comparatively dry woods. It is tolerant of shade and is seldom found outside of the forest. In our area it is usually a small tree with a diameter of 1-2 dm. (4-8 inches) and a clear bole of 2-5 m. (6-16 feet).

The published records of the distribution are as follows: Cass (Benedict and Elrod); Clark (Baird and Taylor) and (Smith); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (McCaslin); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Clark) (Coulter) and (Youse); Lake (Higley and Radden); Marion (Wilson); Miami (Gorby); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (MacDougal); Steuben (Bradner); Tippecanoe (Laben and Conner); Vigo (Blatchley); Wabash (Benedict and Elrod); Wayne (Petty and Markle).

Additional records are: Brown (Wright); Montgomery (Evans); Putnam (Cook) and (Grimes); Tippecanoe (Coulter); Bartholomew, Blackford, Crawford. Delaware, Hamilton, Hancock, Jackson, Knox, Laporte, Morgan, Owen, Porter, Posey,⁷ Steuben, Vermillion, Warren and Wells (Deam).

Economic uses. Wood heavy, hard, tough, strong, light brown. The tree is so small and crooked and the wood so difficult to work that it is of little economic importance.

2. *ÓSTRYA*. THE HOP HORNBEAMS.

(*Ostrya* is from the Greek, *ostreon*, a scale or shell, in allusion to the fruit.)

Ostrya virginiana (Miller) Willdenow. IRONWOOD. HORNBEAM. (*Ostrya virginiana* (Miller) K. Koch.) Plate 34. A small tree with shreddy brown bark; winter buds acute; branches slender; young twigs green, hairy, becoming smooth and brown; leaves ovate to lanceolate, acute at the apex, rounded wedge-shape or cordate at

PLATE 34.



OSTRYA VIRGINIANA (Miller) Willdenow. IRONWOOD. (X $\frac{1}{2}$.)

the base, sharply serrate, 6-10 cm. ($2\frac{1}{2}$ -4 inches) long, mature leaves glabrous above, with pubescent veins and tufts of hairs in the axils of the veins below; flowering period April or May; staminate aments about 4 cm. ($1\frac{1}{2}$ inches) long at time of flowering; nuts light brown, about 8 mm. ($\frac{1}{3}$ inch) long, ovoid, flattened, obscurely longitudinally ribbed, enclosed in a papery, ovate bag about 2 cm. ($\frac{3}{4}$ inch) long, formed by the union of the mature bracts; the aggregate fruit resembles the hop, hence its common name.

Distribution. Valley of St. Lawrence River south to the Gulf States and West to Texas and Minnesota. It occurs more or less frequently in dry soil in all parts of Indiana, and is usually associated with beech, white ash and sugar maple. It is less frequent in the southwest part of the state, and in a greater part of Posey County it is wanting. It is usually a tall, slender tree, ranging from 1-2 dm. (4-8 inches) in diameter and 6-12 m. (20-40 feet) in height. It is shade enduring and is commonly found in thick woods.

The published records of the distribution are as follows: Clark (Baird and Taylor); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Gibson (Schneck); Hamilton (Wilson); Jefferson (Coulter) and (Young); Kosciusko (Clark) and (Coulter); Lake (Higley and Radden); Marion (Wilson); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (MacDougal); Steuben Bradner); Tippecanoe (Coulter); Vigo (Blatchley); Wayne (Petry and Markle).

Additional records are: Montgomery (Rose); Putnam (Cook) and (Grimes); Fulton, Hamilton, Hancock, Laporte, Madison, Marion, Porter, Steuben, Warren and Wells (Deam).

Economic uses. Wood very hard, tough, close-grained, strong, light brown, used for fuel, handles for tools, and mallets. The size and quality of the timber make this tree of little economic importance, except for fuel. It was the favorite wood of the pioneers for making wooden wedges or gluts.

3. BÉTULA. THE BIRCHES.

(Betula is derived from the Celtic, *batu*, the name for the Birch.)

Bark smooth, often separating freely in thin plates, thick and furrowed, or scaly on the trunks of old trees; staminate flowers appear early in spring at the ends of the branches of the year; pistillate spikes ripen in autumn, nuts small, winged, bearing at

the apex the persistent stigmas. Trees or shrubs, the bark and wood of some of which contain an aromatic volatile oil.

- Bark of twigs frequently with a slight wintergreen flavor; fruiting aments sessile or nearly so; leaves with 7-15, usually 9-11 pairs of veins; wings of nut about as wide as the body..... 1 *B. lutea*.
- Bark of twigs usually bitter, not wintergreen flavored; fruiting aments stalked; leaves with 5-9 pairs of veins; wings of nut wider than the body.
- Bark of trunk greenish-white to reddish-brown, scaly and usually shaggy, leaves glaucous beneath; fruiting aments erect or nearly so..... 2 *B. nigra*.
- Bark of trees chalky white, not scaly or shaggy; leaves not glaucous beneath; fruiting aments drooping or spreading.
- Upper surface of leaves shiny; staminate catkins usually solitary; dark triangular spots on the bark at the base of the limbs..... 3 *B. populifolia*.
- Upper surface of leaves not shiny; staminate catkins usually 2 or 3; no dark spots on the bark at the base of the limbs..... 4 *B. papyrifera*.


 1. **Betula lutea** Michaux. BIRCH. Plate 35. Bark of old trunks fissured into wide plates, usually rolling back from one edge, rarely tight, dull dark brown, bark of small trees and the branches of old trees silver or dark gray, freely peeling off in thin strips, never smooth; the year's shoots hairy, greenish gray, becoming smooth and reddish-brown by the end of the second year, not aromatic when bruised, sometimes when chewed a faint wintergreen odor may be detected; winter buds pointed, light to a reddish-brown, smooth, scales usually with a fringe of hairs; leaves usually appearing in pairs, ovate to oblong-ovate, 4-14 cm. ($1\frac{1}{2}$ - $5\frac{1}{2}$ inches) long, taper-pointed, oblique and wedge-shaped, rounded or slightly cordate at the base, 7-15 pairs of lateral veins, usually 9-11, sharply and rather coarsely serrate, hairy on both sides when they appear, becoming at maturity dark green and somewhat smooth above, usually with a few long hairs remaining, occasionally entirely smooth, paler and more or less hairy on the veins beneath, both surfaces covered more or less with resinous dots; petioles permanently hairy, generally 10-12 mm. (about $\frac{1}{2}$ inch) long; flowers appear in May, staminate catkins in clusters at the ends of the branches, about 6 cm. ($2\frac{1}{2}$ inches) long, scales broadly ovate, blunt, fringed with hairs, green tipped with a margin of reddish-brown, pistillate spikes solitary in the axils of the leaves, 2-4 cm. ($\frac{3}{4}$ - $1\frac{1}{2}$ inches) long, generally about 3 cm. (about 1 inch) long, commonly about half as

PLATE 35



BETULA LUTEA F. A. Michaux. YELLOW BIRCH. ($\times \frac{1}{2}$.)
(Bract and nut, $\times 2$.)

thick as long, erect or ascending, sessile or on very short stalks; scales very variable, 5-11 mm. ($1/5$ - $1/2$ inch) long, generally about 8 mm. ($1/3$ inch) long, usually about $1/4$ longer than wide, sometimes wide as long, densely pubescent on the back, less so at the tips, glabrous or nearly so on the inside, ciliate, occasionally with brown or black glands on the margin, commonly lobed to more than $1/3$ of their length, the lobes ascending or divaricate, the lateral generally the larger and almost as long as the narrower middle lobe; nuts divested of the wings, slightly obovate, about 3 mm. ($1/8$ inch) long, wings about $2/3$ as wide as the nut and usually with a fringe of hairs at the very blunt apex.

Distribution. Newfoundland west to Manitoba, south to Delaware and southern Indiana, and in the Alleghany Mountains south to Georgia. In Indiana it is rare and local. It is found in the northern counties in colonies on the borders of lakes, in tamarack swamps and wet woods. It has not been reported south of Miami County except in Crawford County, where it appears on the cliffy sides of a deep ravine about 1 mile east of Taswell. In the northern part of the State it is associated with the black ash, white elm, tamarack, silver-leaf maple and red elderberry. In Crawford County it is found on the sides of the dry cliffs, associated with the hemlock and laurel (*Kalmia latifolia*).*

In our area this species of birch is not a large tree. In the northern part of the state it sometimes attains a height of 15 m. (45 feet); and a diameter of 4-6 dm. (24-39 inches). The trunks are short, usually 2-4 m. (6-12 feet) long.

This species by different authors has been variously called *Betula lenta*, *Betula alleghanensis* and *Betula lutea*. However it appears to be a regional form of the later species, and the preceding botanical description has been made from copious Indiana material, collected from several parts of the state, and drawn to cover only the form occurring in our area.

Betula lenta does not occur in our area and the records for its distribution in Indiana should be referred to *Betula lutea*. Dr. Schneck and Ridgway reported *Betula lenta* as occurring in the lower Wabash Valley but an examination of Dr. Schneck's herbarium material failed to reveal a specimen. It is believed this Indiana reference should be referred to *lutea*.

Transferring the *lenta* references, the published records of the distribution are as follows: Fulton (Hessler) a few in a tamarack

*This is the only known station for the laurel in Indiana, though it is said to occur in Floyd County west of New Albany. It literally covers the banks of the ravine near Taswell and sometimes attains a height of 5 m. (15 feet) and a diameter of 7 cm. (3 inches).

swamp; Miami (Gorby); Noble (Van Gorder) as rare; Steuben (Bradner).

Additional records are: Crawford, Laporte, Porter and Steuben (Deam).

Economic uses. Occurring in too limited numbers to be of economic importance.

2. *Betula nigra* Linnaeus. BIRCH. WATER BIRCH. RED BIRCH. Plate 36. Bark on young trees and on the branches separating freely into large, thin papery scales which roll back and usually persist for years; young twigs hairy, becoming smooth and reddish, hence the common name "red birch"; leaves rhombic-ovate, smooth above, pubescent beneath, rarely nearly glabrous, irregularly toothed, taper-pointed at apex, short wedge-shaped at base, usually broadly so; staminate catkins 6-9 cm. ($2\frac{1}{2}$ - $3\frac{1}{2}$ inches) long. flowers expand in March, April or May; mature fertile catkins 2-5 cm. ($\frac{3}{4}$ -2 inches) long, about 1 cm. ($\frac{3}{8}$ inch) thick, erect or spreading, on short hairy stalks; bracts velvety, ciliate, the three lobes nearly equal and frequently tipped with dark brown; nuts ovate, the wing as broad or broader than the body.

Distribution. Massachusetts to Minnesota, south to the Gulf States and west to Texas. In Indiana it is found principally in the southern part of the state along streams or in the "flats", which are inundated a part of each year. In the flats it is most frequently associated with the soft maples, sweet gum and pecan, and sometimes forms the principal stand. In the hilly parts of the State in the range of its distribution it is confined to the low banks of streams where it is frequent or rare. Along the streams it is usually found to have a short crooked trunk, but in the flats it is a tall straight tree. In size in our area it ranges from 2-8 dm. (8-32 inches) in diameter and 10-30 m. (33-97 feet) high. It is doubtful if it occurs in Indiana east of Jefferson County, or in the area bounded on the south by the C. H. & D. Railroad west of Indianapolis and the Big Four between Indianapolis and Cincinnati, and on the north by the Wabash Railroad between Fort Wayne and Lafayette. In the northern counties it is rare and local, except along the course of Yellow River, in Marshall and Starke counties, where it is found more or less frequently. In Posey County, in the vicinity of Hovey Lake, it is the principal stand, and it is here that it attains its greatest development.

The published records of the distribution are as follows: Clark (Baird and Taylor) and (Smith); Gibson (Schneck); Jackson, Lake and Martin (Blatchley); Knox (Ridgway); Miami (Gorby); vicinity

PLATE 36.



BETULA NIGRA Linnæus. WATER OR RED BIRCH. ($\times \frac{1}{2}$.)
(Bract and nut, $\times 2$.)

of New Albany (Clapp); Owen (Blatchley); Posey (Schneck); Putnam and Vigo (Blatchley).

Additional records are: Monroe (Blatchley); Brown, Clark, Marshall, Posey and Starke (Deam).

Economic uses. Wood light, strong, close-grained, heart wood light brown. Representative uses are furniture, heading, wooden ware, moulding and shoe-lasts. The supply in this State is not of sufficient quantity to be of much importance.

3. *Betula populifolia* Marshall. BIRCH. Plate 37. Outer bark chalky white, that on the trunks of old trees nearly black, inner bark orange, not separable into thin layers; leaves nearly triangular; usually long taper-pointed, truncate or nearly so at the base, smooth and shiny on both sides, 3-7 cm. (1-2¾ inches) long; staminate catkins about 5-10 cm. (2-4 inches) long, mature pistillate catkins 1.5-3.5 cm. (½-1¼ inches) long, about 7 mm. thick; nut oval, narrower than the wing. This is the gray or white birch of text books.

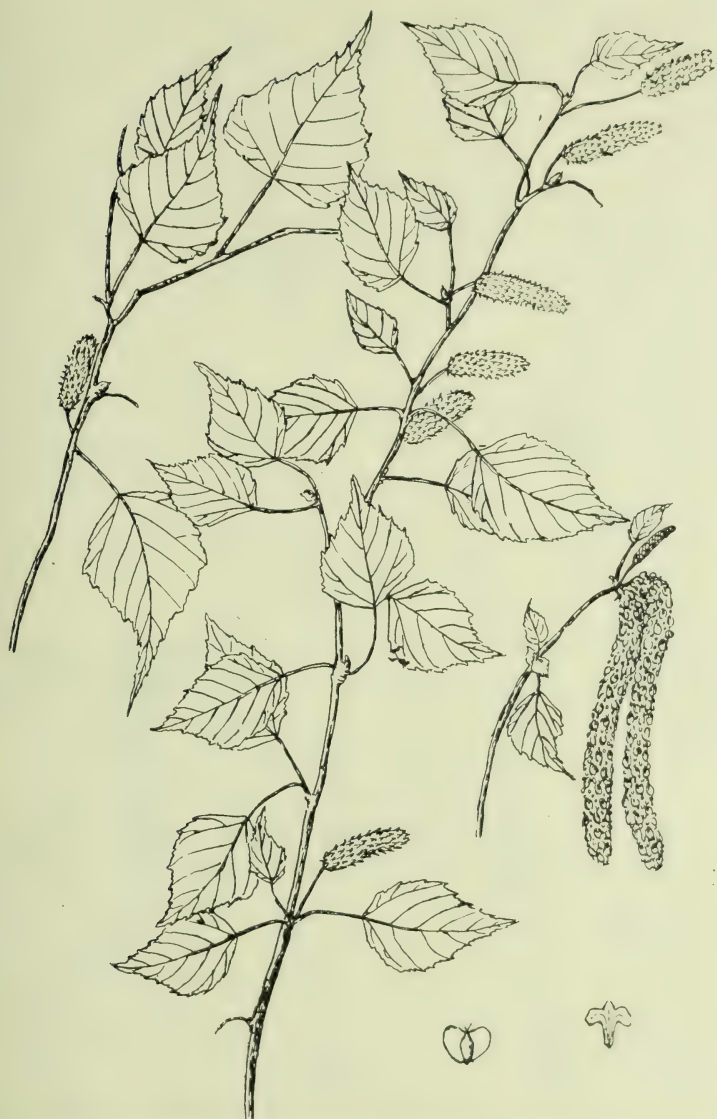
Distribution. Nova Scotia south to Delaware and westward through New England to New York. It again appears in Indiana in Lake and Tippecanoe Counties. It has been definitely reported in the following counties: Tippecanoe (Golden) as "sparsely along Wabash River", Lake (Higley and Radden) as "rare", Lake and Porter (Blatchley) as "scarce." In the most favorable conditions in its range it seldom is more than 4 dm. (16 inches) in diameter and 12 m. (39 feet) in height. In our area it is rare and a small tree of 1-2 dm. (4-8 inches) in diameter and of no economic importance.

Additional records are: Laporte (Deam).

Horticultural value. Occasionally planted as an ornamental tree. Its native habitat is a moist soil, although it adapts itself to drier situations. It is usually a short-lived tree and if a birch is desired, other species or horticultural varieties should be chosen.

4. *Betula papyrifera* Marshall. BIRCH. Plate 38. Bark thin, creamy white, chalky, readily separating in thin layers; young twigs green, viscid, becoming reddish or dark brown at the end of the season and in a few years the characteristic white of the older branches; leaves ovate, 4-10 cm. (1½-4 inches) long, irregular toothed, gradually tapering at the apex, rounded, wedge-shaped or cordate at the base, dark green and smooth above, paler with hairs on the veins and dotted with conspicuous glands beneath, staminate catkins pendulous, 2 or 3 together, 5-10 cm. (2-4 inches) in length, scales fringed, mature pistillate catkins pendulous, 2-4 cm.

PLATE 37.



BETULA POPULIFOLIA Marshall. GRAY OR WHITE BIRCH ($\times \frac{1}{2}$)
(Braet and nut, $\times 2$.)

PLATE 38.



BETULA PAPYRIFERA Marshall. CANOE BIRCH. ($\times \frac{1}{2}$.)
(Bract and nut, $\times 2$.)

($\frac{3}{4}$ -1 $\frac{1}{2}$ inches) long and about 8 mm. ($\frac{1}{3}$ inch) thick, scales slightly hairy, the middle lobe acute, the two lateral lobes shorter, orbicular and diverging almost at right angles; nut oval, about 1.5 mm. ($\frac{1}{20}$ inch) long with wings twice as wide.

Distribution. Alaska and Labrador south to New York, northern Indiana, Colorado and Washington. In Indiana it has been noted only in Lake and Porter Counties. In favorable conditions in the range of its distribution it is a large tree, assuming a height of 30 m. (98 feet) and a diameter of more than a meter (39 inches). In our area it is a rare and small tree. This is the tree from which the Indians made their canoes and is frequently called the "canoe birch."

The published records of the distribution are as follows: Lake (Blatchley) and (Hill).

Additional records are: Lake and Porter (Deam).

Economic uses. Wood light, close-grained, strong and tough, light brown. Representative uses are spools, shoe-shanks, shoe pegs, tooth picks, wood bottles, etc. The greater supply is in Maine, where it is the principal wood industry. In Indiana the tree is so small and the supply so limited as to be of no commercial value.

Horticultural value. Sometimes used for ornamental planting. It is not long-lived, requires much light, is adapted to a moist or dry soil.

4. *ÁLNUS*. THE ALDERS.

(From the Celtic words, *al*, near, and *lau*, the banks of a river.)

Bark astringent; leaves variously toothed or lobed; mature pistillate catkins oblong to ovoid, 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch) long, becoming woody and remaining on the tree for several months. A small tree or usually shrub-like in our area.

Leaves sharply doubly serrate, the ends of the primary

veins forming the apex of the larger teeth, glaucous

and pubescent beneath..... 1 *A. incana*.

Leaves singly serrate, pale green and pubescent beneath.. 2 *A. rugosa*.

1. *Alnus incana* (Linnæus) Muenchhausen. TAG ALDER. SPECKLED ALDER. Plate 39. Bark reddish or bottle green with gray dots, whence its common name; leaves usually of a broadly oval type, short-pointed at the apex, widely rounded at the base, blade 4-10 cm. (1 $\frac{1}{2}$ -4 inches) long, 3-7 cm. (1 $\frac{1}{4}$ -3 inches) wide, dark green and glabrous above, paler, glaucous and pubescent at least on the veins

PLATE 39.



ALNUS INCANA (Linnaeus) Muenchhausen. TAG ALDER. (X $\frac{1}{2}$.)

beneath; staminate catkins terminal, 2-7 cm. ($\frac{3}{4}$ -2 $\frac{3}{4}$ inches) long, pistillate catkins lateral, bent downward, at maturity resembling a small cone; scales thickened at the tip.

Distribution. Newfoundland and Saskatchewan south to Pennsylvania, and west to Iowa and Nebraska. In Indiana it has been noted only in the vicinity of Lake Michigan where it is locally frequent in low woods and low places between the dunes near the lake. It frequently attains a diameter of 1-1.5 dm. (4-6 inches) and a height of 9 m. (29 feet).

The published records of the distribution are as follows: Lake and Porter (Blatchley).

Additional records are: Lake (Umbach); Porter (Chase); Lake and Porter (Deam).

2. *Alnus rugosa* (Du Roi) Sprengel. ALDER. Plate 40. Trunk fluted or angled, resembling *Carpinus*, bark thin, smooth or nearly so, grayish brown; bud scales thickly black resinous dotted; leaves ovate or oval, very short pointed or rounded at the apex, rounded or somewhat wedge-shaped at the base, rather regularly and minutely serrate, 4-11 cm. ($1\frac{1}{2}$ -4 $\frac{1}{2}$ inches) long, smooth and dark green above, lighter below, with more or less rusty pubescence beneath, especially along the veins, under surface of green leaves sufficiently resinous to adhere to paper if pressure is applied; staminate catkins 5-8 cm. (2-3 inches) long, 3-5 together, expanding early in the spring, pistillate catkins erect.

Distribution. Maine to Florida, west to Texas, rarely inland to Minnesota. In Indiana it is found in widely separated parts of the State. It is local in its distribution, usually growing in clumps in swamps or along the banks of streams. It is usually shrub-like, although it occasionally attains a diameter of 7 cm. (3 inches) and a height of 5 m. (16 feet).

The published records of the distribution are as follows: Clark (Baird and Taylor); Gibson (Schneck); Jefferson (Coulter); Knox (Ridgway); Kosciusko (Coulter); Lake (Higley and Radden); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Posey (Schneck); Tippecanoe (Coulter).

Additional records are: Jefferson (Young); Monroe (Blatchley); Jackson and Starke (Deam).

Economic uses. Not of sufficient size or abundance to be of any commercial value.

PLATE 40.



ALNUS RUGOSA (Du Roi) Sprengel. ALDER. ($\times \frac{1}{2}$.)

PLATE 41.

FAGUS GRANDIFOLIA Ehrhart. BEECH (x $\frac{1}{2}$.) (Nut, x 1.)

FAGACEÆ. THE BEECH FAMILY.

Trees with watery juice; leaves alternate, pinnately-veined; flowers of two kinds; fruit a 1-seeded nut. This is the most important family of trees occurring in the State.

Staminate flowers in heads on drooping peduncles; nuts triangular, inclosed in a woody husk armed with recurved prickles..... 1 *Fagus*.

Staminate flowers in slender catkins; nuts not as above.

Nuts inclosed in a woody husk armed with numerous straight prickles..... 2 *Castanea*.

Nuts seated in a scaly and woody cup..... 3 *Quercus*.

1. FAGUS. THE BEECH.

(From the Greek word *phago*, to eat, because the nuts were formerly used as food.)

Trees with pale smooth bark; buds long, acute, chestnut-brown; staminate flowers in globose heads, stamens 8-16, pistillate flowers 2-4 in a cluster in the axils of the upper leaves; nuts usually 2 in an oval shell, which opens to discharge the nuts.

Fagus grandifolia Ehrhart. BEECH. RED BEECH. WHITE BEECH. YELLOW BEECH. Plate 41. Bark light to a dark gray; twigs reddish-brown the first year, turning to gray; leaves ovate to oblong-ovate, usually rather long taper-pointed, wedge-shaped to cordate at base, regularly and usually minutely serrate, the veins ending in the apex of the teeth, silky when young, at maturity becoming smooth above and nearly so beneath, blade 6-13 cm. (2½-5 inches) long; flowers appear in May; nuts 1-1.5 cm. (¾-½ inch) long, triangular, reddish-brown, pubescent.

Distribution. Nova Scotia, Ontario and Wisconsin, south to the Gulf States and west to Texas. Found in all parts of Indiana, though not frequent in the prairie region of the northwestern part of the State. It is frequent to very common in almost all parts of the State on high ground. In point of number it ranks first of Indiana trees. It is usually associated with sugar maple, buckeye, ironwood, white ash, red oak, linden and yellow poplar. Among the hills in the southern part of the State the oak is the dominant stand on the south slope of the hills and the beech the dominant stand on the north side. In Jackson, Scott and some adjacent counties it adapts itself to wetter conditions and is found in the flats associated with sweet gum and pin oak. It grows to be a large tree in our area, reaching a height of 35 m. (115 feet) and a diameter of a meter (39 inches).

The published records of the distribution are as follows: Carroll (Thompson); Cass (Benedict and Elrod) and (Coulter); Clark (Baird and Taylor); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Clark); Marion (Wilson); Miami (Gorby); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod); Wayne (Petty and Markle).

Additional records are: Montgomery (Rose) and (Thompson); Putnam (Cook), (Grimes) and (MacDougal); Tippecanoe (Coulter) and (Dorner); Clark, Decatur, Delaware, Floyd, Gibson, Hancock, Hendricks, Jennings, Laporte, Madison, Monroe, Montgomery, Morgan, Owen, Porter, Wells (Deam).

Economic uses. Wood very hard, strong, usually tough, difficult to season, close-grained, takes a high polish, sap wood white, heart wood light or reddish-brown. Some trees are composed principally of white wood, hence the name "white beech", and are much tougher than those that are principally red wood, which are popularly known as "red beech". Our best botanists have failed to separate the two kinds of trees botanically. Used chiefly for building material, frame stuff, heading, staves and fuel.

Horticultural value. Its dense shade, clean appearance of the limbs and trunk, slender branches which turn up at the extremities and freedom from disease and insects make this one of the most desirable trees for ornamental and shade tree planting. It is not easy to transplant and because it does not grow rapidly and straight it is not frequently used. When grown in the open it is not inclined to grow tall. It is best adapted to a moist, rich and well drained soil.

2. *CASTANEA*. THE CHESTNUT.

(Named from a town in Thessaly, famed for its chestnut trees).

Castanea dentata (Marshall) Borkhausen. CHESTNUT. Plate 42. Bark of old trees deeply fissured, dark gray or brown, bark of young trees smooth; twigs at first hairy, soon smooth; leaves oblong-lanceolate, 1-3 dm. (4-12 inches) long, taper-pointed, wedge-shaped or obtuse at the base, coarsely serrate with incurved teeth, veins terminating in the teeth; flowers appear after the leaves in June or July, strong-scented, staminate aments terminal and from the axils of the lower leaves, 1-2 dm. (4-8 inches) long, pistillate flowers appear in clusters of 2-5 just below the staminate aments or in the

PLATE 42.



CASTANEA DENTATA (Marshall) Borkhausen. CHESTNUT (x $\frac{1}{2}$.)

axils of later leaves; fruit ripens in September or October, consists of 1-3 nuts, rarely 1 or 5, enclosed in a round, spiny burr, about 5-7 cm. (2-3 inches) in diameter; nuts flattened and edible.

Distribution. Maine, Ontario and Michigan south to Delaware and Tennessee and in the mountains to Alabama and west to Arkansas. In Indiana it is found only in the southern part of the State. Not known north of the 39th degree of latitude, except a few trees on the south bank of White River about two miles east of Anderson in Mound Park, which was a site of an Indian village. It is scattered in its distribution and occurs only in a few counties in any abundance. The greatest numbers are found in Clark, Crawford, Floyd, Jackson, Harrison and Washington counties. It is found on dry soil and is associated with black, white and scarlet oaks.

The published records of the distribution are as follows: Clark (Baird and Taylor), (Coulter) and (Smith); Crawford (Coulter); Decatur (Ballard); Delaware, Jay, Randolph and Wayne (Phinney); Floyd (Coulter); Gibson (Schneck); Harrison (Coulter); Jackson (Ridgway); Jefferson (Young); Knox (Coulter); Martin (Ridgway).

Additional records are: Posey (Wright); Clark, Floyd, Jackson and Washington (Deam).

Economic uses. Wood light, soft, not strong, checks and warps in seasoning, yellowish-brown and durable in contact with the soil. A large tree in our area, and formerly much used for rails because it split easily, and for fence posts and crossties on account of its lasting qualities in contact with the soil. The supply in this State is practically exhausted. Its principal uses are for fence posts, crossties, telegraph and telephone poles and lumber. The bark is rich in tannin and where available has been used in tanning. The nuts are edible and in the east are a profitable crop. The nut weevil usually destroys the nuts in this State. The leaves are extensively used as a decoction or infusion for the relief of whooping cough.

Horticultural value. In the forest the chestnut grows tall with a clean bole. In the open it develops a wide crown and does not grow tall. In its natural range it is one of the most desirable trees for ornamental and shade tree purposes. Usually the tree does not live to any great age if planted outside of its natural range. An objection to it is the litter made by the burrs of the fruit. This tree is not recommended for forest planting because a fungous bark disease has appeared in the east which threatens to kill all trees of this species.

3. QUÉRCUS. THE OAKS.

(From the Celtic, *quer*, fine, and *cues*, tree; in reference to the quality of the trees.)

The leaves of the Indiana species are deciduous; flowers appear in April or May, staminate flowers in slender pendulous catkins, the pistillate solitary or in clusters in a scaly bud-like cup; fruit an acorn which takes one or two years to mature, ripening in the autumn. The trees that mature their fruit the first year are classed as white oaks and those that mature them the second year are called red, black or bristle-tipped oaks.

The oaks are the longest lived of our native trees. They are peculiar in the amount of their annual growth, especially the white oaks. An examination of the annual rings of the oak will show that the rate of growth is nearly uniform from youth to old age. The slowest rate of growth will be found for the first five to twenty years. Almost all other trees show large annual rings in early years with a gradual decrease after the tree has fully matured. With some trees the maximum growth rate is reached midway between youth and old age. The vitality of the acorn is short and nuts over a year old seldom, if ever, germinate. Nuts that are to be planted should be planted soon after they fall from the tree.

This is the largest genus of Indiana trees and furnishes some of our most valuable hardwoods. The bark of some species contains a large percentage of tannin, and formerly tan bark was an important article of commerce in the State. On account of their astringent properties, the bark, as well as the galls of some species are used in medicine.

The heavy fruiting of the oaks was an important item to the pioneer, who was accustomed to feed his swine on the nuts of the forest, which were known as "mast", of which the acorns formed the greater part.

Bark gray, more or less scaly; mature leaves never with bristle tips; fruit maturing the first year.

*Leaves lyrate or sinuate lobed.

Mature leaves pale or glaucous and glabrous beneath. 1 *Q. alba*.

Mature leaves finely pubescent beneath.

Terminal scales of the cup not awned.

Pubescence on leaves beneath brownish; fruit nearly sessile; cup one-third to half as high as the ovoid acorn..... 2 *Q. stellata*.

Pubescence on leaves beneath whitish; fruit stalked, cup nearly covering the depressed globose acorn..... 3 *Q. lyrata*.

- Terminal scales of the cup awned, forming a fringe
around the cup, rarely wanting..... 4 *Q. macrocarpa*.
- *Leaves with sharp or rounded teeth, sometimes
somewhat lobed in No. 5.
- Fruit peduncled.
- Peduncles exceeding the petioles..... 5 *Q. bicolor*.
- Peduncles equaling or shorter than the petioles.
- Bark flaky..... 6 *Q. Michauxii*.
- Bark close and furrowed..... 7 *Q. Prinus*.
- Fruit sessile or on very short peduncles..... 8 *Q. Muhlenbergii*.
- Bark dark, furrowed; leaves with bristle tips; fruit ma-
turing the second year.
- **Leaves more or less deeply lobed, the lobes or teeth
conspicuously bristle pointed.
- Mature leaves green and smooth beneath, except tufts
of hairs in the axils, somewhat regularly lobed.
- Leaves lobed to about the middle, lobes wedge-
shaped, broadest at the base; cup saucer-shaped;
nut about 2 cm. ($\frac{3}{4}$ inch) broad..... 9 *Q. rubra*.
- Leaves lobed to beyond the middle, rarely a few not
so deeply lobed, at least some of the lobes broad-
est at the apex.
- Cup saucer-shaped, rarely enclosing the nut for
more than $\frac{1}{3}$ its length.
- Leaves glossy above; cup about 1-1.5 cm. (about
 $\frac{1}{2}$ inch) broad..... 10 *Q. palustris*.
- Leaves dull above; cup 1.5-2.5 cm. (about $\frac{3}{4}$
inch) broad..... 11 *Q. Schneckii*.
- Cup hemispheric or top-shaped, generally enclos-
ing the nut for $\frac{1}{2}$ its length.
- Inner bark gray or reddish, scales of the cup
closely appressed.
- Cup brown, scales at maturity glabrous,
glossy, acute, kernel white..... 12 *Q. coccinea*.
- Cup ashy, scales not glossy, hairy, blunt;
kernel yellow..... 13 *Q. ellipsoidalis*.
- Inner bark orange, scales at the top of the cup
loose..... 14 *Q. velutina*.
- Mature leaves with a gray or rusty pubescence be-
neath, generally irregularly lobed..... 15 *Q. falcata*.
- **Leaves entire or with few teeth, or 3-5 lobed above
the middle.
- Leaves entire, oblong, pointed at both ends..... 16 *Q. imbricaria*.
- Leaves obovate, 3-5 lobed above the middle, lobes
rounded..... 17 *Q. marylandica*.

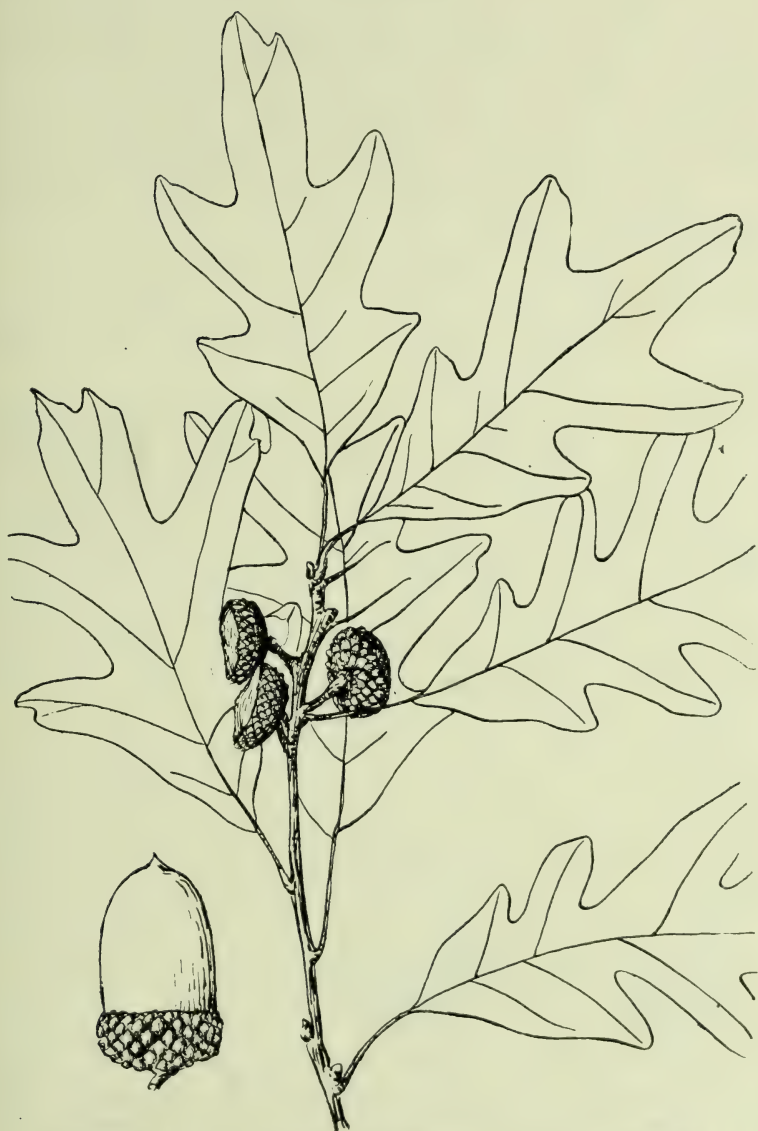
1. *Quercus álba* Linnæus. WHITE OAK. Plate 43. Bark usually light gray, sometimes a very dark gray, not deeply fissured, flaky, especially on the upper part of the trunk and larger branches, sometimes the lower part of the trunk is more deeply fissured with the

ridges of the bark very firm, the wood of such trees is usually considered much tougher than those with a more flaky bark; twigs at first green, often tinged with red, hairy, becoming reddish-brown, smooth and glossy, covered with a glaucous bloom, finally becoming an ash gray; winter buds broadly ovate, blunt, reddish-brown, smooth, about 2 mm. (1/10 inch) long; leaves mostly obovate in outline, varying to oblong, 1-2 dm. (4-8 inches) long, with yellow midrib and prominent lateral veins, the margin very variable, usually with 7 lobes, sometimes with 3-9, lobes ascending, usually blunt and entire, sometimes with 1 or 2 secondary lobes, sinuses of the lobes rounded at the base, blades wedge-shaped at base, acute to rounded at the apex, reddish when they unfold, pubescent, becoming a bright green above, paler or glaucous beneath, smooth both above and below; flowers appear in May when the leaves are about one fourth grown; acorns sessile or sometimes stalked; nut ovoid to oblong, inclosed from $\frac{1}{4}$ to $\frac{1}{3}$ of its length in the cup-shaped cup, 1.5-2 cm. (about 1 inch) across; scales of cup obtuse and woolly.

Distribution. Southern Maine, Ontario westward to Minnesota and southward to Florida and Texas. Found in all the wooded parts of Indiana.

The white oak is one of the largest trees that grows in the State. It is adapted to several kinds of soil and is frequent to very common in all situations in Indiana, except in low and poorly drained soil. It attains its greatest size in rich, moist and well-drained lowlands. In point of number it ranks second among Indiana trees. In the north-central part of the State it forms the principal stand on the clay ridges, which are popularly known as "white oak" ridges. The soil of these ridges is the poorest of the locality, except where there are black oak (*Quercus velutina*) ridges. In the northern counties where the ridges are composed of more sand and gravel, they are more frequently covered with a mixture of white and black oaks and about an equal number covered with a pure stand of each species. In the vicinity of Lake Michigan the white oak is rarer and the black oak is the prevailing species. In the central part of the State the white oak is frequent in moist rich woods where beech and maple are not the principal stand. In the southern counties it is frequently found in pure stands on the hills and slopes, and is more or less frequent on the lower slopes of all the hills. In this section the hills usually have white oak, black oak, beech, or maple for the principal stand. In the southwestern counties it is frequent in moist, rich and well-drained soil.

PLATE 43.

QUERCUS ALBA Linnæus. WHITE OAK. ($\times \frac{1}{2}$.) (Acorn $\times 1$.)

The published records of the distribution are as follows: Carroll (Thompson); Cass (Benedict and Elrod) and (Coulter); Clark (Baird and Taylor) and (Smith); Clay (Wilson); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Youse); Marion (Wilson); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (Wilson); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod); Wayne (Petry and Markle).

Additional records are: Montgomery (Rose); Putnam (Grimes) and (MacDougal); Tippecanoe (Coulter); Bartholomew, Blackford, Clark, Daviess, Delaware, Hamilton, Knox, Laporte, Posey, Steuben, Warren and Wells (Deam).

Economic uses. Wood heavy, hard, close-grained, tough, strong, durable and of a light brown color, sap wood lighter. It is the most valuable timber of America because of its wide range of uses. The fact of its adaptation to so many uses has so reduced the seemingly inexhaustible supply that now large trees are rarely seen. The principal uses are general construction, interior finish, cooperage, wagon and carriage stock, furniture, agricultural implements, crossties, posts, baskets and fuel. Millmen and lumbermen usually grade as white oak the following species: burr oak, swamp white oak, chinquapin oak, basket oak, post oak and overcup oak.

Horticultural value. Soil requirements as given above; hardy in all parts of the state; grows slowly; difficult to transplant, especially after it has attained some size. It is most successfully propagated by planting the seed on the site where the tree is expected to grow. The seed should be planted in the fall soon after it matures. In the work of reforesting it is advised to dibble in the seed, covering with earth to a depth of about twice its width. The seed may be broadcasted, but this method is attended with more elements of failure. When this method is employed the nuts are easily gathered by rodents, and germinated nuts may be unable to find a foothold in the ground. The distance apart the seed should be planted depends primarily on the quality of the seed and the attention the owner expects to give to the planting. It is usually planned to give each nut 3-4 square feet of space.

Quercus álba X Muhlenbergii. Plate 44. Bark of a white oak type, branchlets in October gray and somewhat pubescent; winter buds ovoid, blunt, reddish-brown, more or less gray pubescent;

PLATE 44.



QUERCUS ALBA X. MUHLENBERGII. ($\times \frac{1}{2}$.) (Acorns, $\times 1$.)
Hybrid oak. A cross of the white and chinquapin oaks.

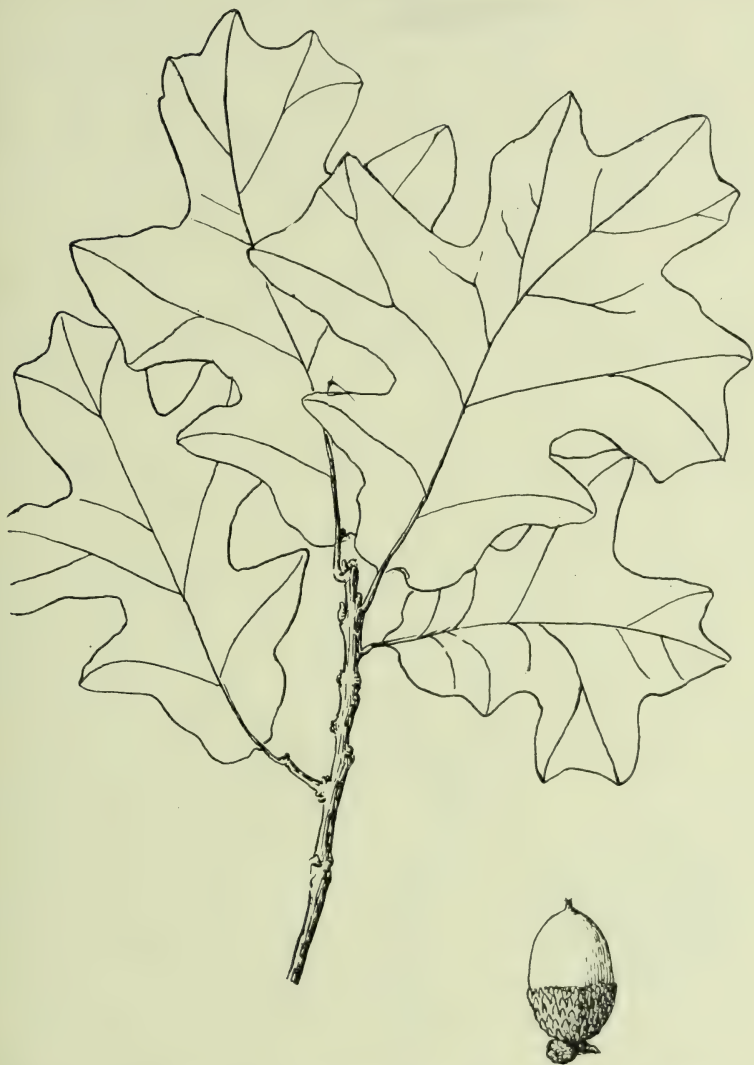
leaves obovate in outline, 6-12 cm. ($2\frac{1}{4}$ - $4\frac{3}{4}$ inches) long, wedge-shaped at base, coarsely toothed and irregularly lobed, sinuses wide or narrow, lobes and teeth ascending except the lowest pair, lobes and teeth generally triangular, sometimes oblong, dark green above, paler and densely gray pubescent beneath; petioles 1.5-3 cm. ($\frac{1}{2}$ - $1\frac{1}{4}$ inches) long; acorns on stalks about 0.5 cm. ($\frac{1}{5}$ inch) long; nut ovoid, about 2 cm. ($\frac{3}{4}$ inch) long, rounded or flat at the base, rounded at the apex, chestnut brown, pubescent near the summit, enclosed for $\frac{1}{3}$ or more of its length in the thin saucer-shaped cup; cup rounded at the base, pubescent within; scales blunt, thickened on the back, brown, densely gray pubescent.

Distribution. This hybrid oak was discovered by E. B. Williamson in an open woods about 2 miles northwest of Bluffton, October 9, 1904. An effort was made to save the tree, but it was cut a few years afterward. The determination was made by George B. Sudworth and a specimen is deposited in the National herbarium. The tree was located on a slope, associated with *Quercus alba* and *Muhlenbergii*.

2. *Quercus stellata* Wangenheim POST OAK. IRON OAK. SAND BURR OAK (Gibson County). Plate 45. Bark a light or medium gray, resembling that of the white oak, fissured, deeply so on old trees, tight not scaly on the trunks; branchlets stout, brownish-woolly at first, becoming smooth, gray to dark brown after the first year; winter buds broadly ovate, blunt or acute, hairy; leaves on stalks about 12 mm. ($\frac{1}{2}$ inch) long, obovate in outline, usually 1-1.5 dm. (4-6 inches) long, about 1 dm. (4 inches) across at the widest point, wedge-shaped at the base, usually 5-lobed, the two lower lobes small with rounded or pointed ends, the two upper and terminal lobes larger and frequently with 2-3 secondary lobes, the ends of the lobes usually rounded, sometimes with rather sharp points, sinuses oblique, usually wide and with rounded bases, leaves thick and firm, dark green, shiny and with a few scattered hairs above, densely covered with grayish hairs beneath; fruit sessile or short stalked, often in pairs or clusters; nut ovate or ovate-oblong, about 1.5 cm. ($\frac{5}{8}$ inch) long, hairy at the apex, enclosed by the cup for about half its length; cup hemispheric, somewhat elongated at the base; scales rusty pubescent, acute at the top and obtuse at the base of the cup.

Distribution. In uplands from Massachusetts and New York to Florida and west to Missouri and Texas. In Indiana it is rare and local. It has been reported from Lake County in the northern part of the State where its appearance must be regarded as excep-

PLATE 45.



QUERCUS STELLATA Wangenheim. Post OAK. ($\times \frac{1}{2}$.) (Acorn, $\times 1$.)

tional. It has again been reported from Miami and Hamilton counties. In Gibson and Posey counties it is more or less frequent on the eastern border of the Wabash flats on the dune sands, which vary in width from $\frac{1}{4}$ to 4 miles. In Point Township in Posey County, on the high ground, it is the most abundant oak and grows to be a large tree. In other parts of the State where found it may be common on a small area and then not appear again for miles. It is usually found on sterile hill tops associated with the white and black oaks. In our area, except Gibson and Posey counties, it is a medium sized tree, seldom attaining a height of 25 m. (80 feet) or a diameter of 8 dm. (32 inches), usually about half this size.

The published records of the distribution are as follows: Clark (Baird and Taylor) and (Smith); Gibson (Schneck); Hamilton (Wilson); Lake (Higley and Radden); Miami (Gorby); Vigo (Blatchley).

Additional records are: Clark and Posey (Deam).

Economic uses. Wood heavy, hard, tough, close-grained and durable in contact with the soil. Used principally for crossties, fence posts, wagon stock and construction material.

3. *Quercus lyrata* Walter. OVERCUP OAK. BURR OAK. Plate 46. Bark on the trunk deeply fissured, ridges large, surface somewhat scaly; resembling the white oak in color; twigs reddish-green and hairy at first, becoming smooth and gray or light brown; winter buds ovoid, blunt, more or less hairy, about 3 mm. ($\frac{1}{8}$ inch) long; leaves obovate-oblong, 6-20 cm. ($2\frac{1}{2}$ -8 inches) long, pointed at the apex, wedge-shaped or narrowed at the base, divided into 5-9 lobes, sinuses shallow or deep and rounded, the lobes horizontal or ascending, the terminal one generally the largest and bearing two lateral lobes, the two lobes below the terminal are generally the longest, leaves a bronze-green and hairy on both surfaces when they unfold, becoming at maturity smooth and dark green above, paler and pubescent below, usually silvery beneath, petioles 2-20 mm. ($\frac{1}{8}$ - $\frac{3}{8}$ inch) long; acorns sessile or on short stalks which are sometimes 2 cm. ($\frac{3}{4}$ inch) long and are generally near the plane of the base of the cup; nut depressed, globose, about 2 cm. ($\frac{3}{4}$ inch) long, pubescent at the top, inclosed almost entirely in the rather thin cup which is reddish-brown and pubescent within, scurfy pubescent and light gray without, frequently splitting at the top: scales pointed on the back, developing a tubercular ridge, which is large and very prominent at the base of the cup, gradually becoming smaller toward the top.

PLATE 46.



QUERCUS LYRATA Walter. OVERCUP OAK. ($\times \frac{1}{2}$.) (Acorn, $\times 1$.)

Distribution. Maryland to Missouri, south to Florida and west to Texas. In Indiana it has been definitely noted only in Gibson and Knox counties, where Robert Ridgway says it is common in swamps along the Wabash and its tributaries. Several specimens of this species were in the herbarium of Dr. Schneck which were taken in Illinois just west of the above named counties. It is a large tree resembling the burr oak and is not generally separated from it.

The published records are: Posey (Wright).

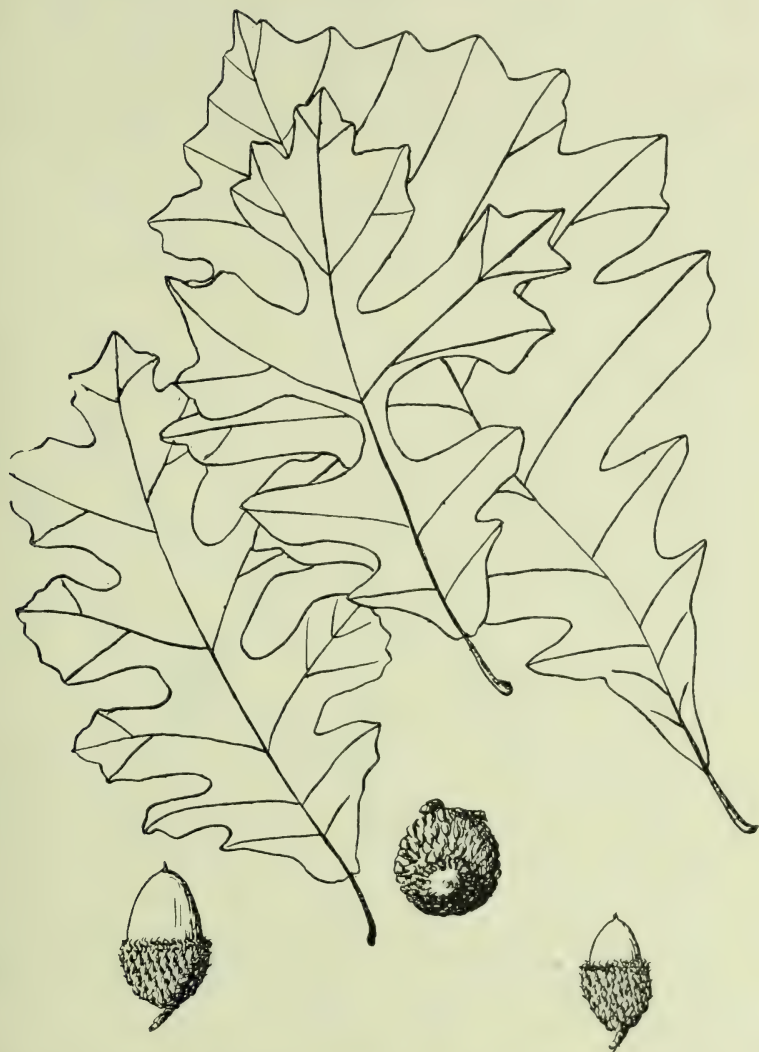
Additional records are: Posey (Deam).

Economic uses. Wood and uses similar to that of the white oak.

4. *Quercus macrocarpa* Michaux. BURR OAK. MOSSY CUP OAK. Plate 47. Bark on the trunk gray to a brown, deeply fissured; the branchlets on young trees developing corky wings which are usually wanting on mature trees; twigs at first hairy and yellowish, becoming at the end of the season smooth or nearly so and a light gray or light brown; winter buds ovoid, round or rather acute at the apex, 3-5 mm. ($\frac{1}{8}$ - $\frac{1}{5}$ inch) long, reddish-brown, the scales nearly smooth with ciliate margins; leaves obovate-oblong in outline, 1-3 dm. (4-12 inches) long, narrowed at the base, rounded or pointed at the apex, 5-9 lobed, sinuses shallow or deep, lobes very variable, some leaves are barely lobed while others are cut to the midrib, the terminal lobe usually the broadest, leaves bronze-green when they appear, becoming firm at maturity, glabrous and a dark green above, whitish beneath and covered with a woolly pubescence; petioles 1-3 cm. ($\frac{3}{8}$ - $1\frac{1}{4}$ inches) long; acorns usually solitary, sometimes in pairs or in clusters of 3, usually on short stalks, sometimes on stalks 3 cm. ($1\frac{1}{4}$ inches) long; nut very variable in size and shape, ovoid to oblong, 2-3 cm. ($\frac{3}{4}$ - $1\frac{1}{4}$ inches) long, hairy at the apex, inclosed from $\frac{1}{3}$ to almost its entire length in the deep cup-shaped cup; cup rounded or gradually tapering at the base, hairy within; scales woolly, at the base thin or thickened and rounded at the apex, those at the top drawn to a long awn and forming a fringe border around the cup.

Distribution. Nova Scotia to Manitoba south to Georgia and west to Texas and Wyoming. Frequent to common in moist rich soil throughout Indiana. In a few of the hilly counties bordering the Ohio River it does not occur so frequently. It is generally found along or near the banks of streams. In point of number, size, and value it ranks as one of the most valuable trees of the State.

PLATE 47.



QUERCUS MACROCARPA Michaux. BURR OAK. ($\times \frac{1}{2}$.) (Acorns, $\times \frac{1}{2}$.)

The published records of the distribution are as follows: Carroll (Thompson); Cass (Benedict and Elrod); Clark (Baird and Taylor); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyncke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter); Knox (Ridgway); Kosciusko (Clark); Marion (Wilson); Miami (Gorby); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (Wilson); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod).

Additional records are: Jefferson (Clapp); Posey (MacDougal and Wright); Putnam (Grimes); Tippecanoe (Coulter) and (Dorner); Blackford, Delaware, Gibson, Knox, Laporte, Posey, Starke, Vermillion and Wells (Deam).

Economic uses. Wood and uses similar to that of the white oak.

5. *Quercus bicolor* Willdenow. SWAMP WHITE OAK. Plate 48. Bark on the trunk deeply and irregularly fissured, sometimes on old trees separating and curling up at the side into long plates, which seldom fall off, gray or reddish-brown; branchlets green, slightly pubescent when they appear, becoming glabrous and a purplish-brown by the end of the year; winter buds ovoid, blunt, brown, about 3 mm. ($\frac{1}{8}$ inch) long, scales somewhat hairy, leaves on petioles 5-20 mm. ($\frac{1}{4}$ - $\frac{7}{8}$ inch) long, obovate to oblong-obovate, 0.7-2 dm. (3-8 inches) long, rounded or pointed at the apex, wedge-shaped or narrowly rounded at the base, coarsely round toothed or somewhat pinnatifid, teeth glandular tipped, primary veins running to the points of the teeth, bronze-green and hairy on both surfaces when they unfold, at maturity becoming thick, dark green, smooth and shiny above, whitish with woolly hairs beneath; acorns usually in pairs on stalks 2.5-8 cm. (1-3 inches) long; nut ovoid, 2-2.5 cm. ($\frac{3}{4}$ -1 $\frac{1}{8}$ inches) long, somewhat hairy near the summit, inclosed for fully one third its length in the shallow cup-shaped cup which is pubescent within; scales acute, closely appressed except the tips which sometimes form a fringe-like border at the top, scurfy pubescent and frequently tuberculate; kernel sweetish.

Distribution Maine to Michigan and eastern Iowa, south to Florida and west to Texas. Frequent throughout Indiana in wet woods, usually associated with the burr oak from which it is not commonly separated. It grows to be a large tree, although as a rule not quite so large as the burr oak.

The published records of the distribution are as follows: Carroll (Thompson); Cass (Coulter); Clark (Baird and Taylor) and

PLATE 48.



QUERCUS BICOLOR Willdenow. SWAMP WHITE OAK. (x $\frac{1}{2}$.)
(Acorn, x 1.)

(Smith); Clay (Wilson); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Clark) and (Youse); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Posey (Schneck); Putnam (Wilson); Steuben (Bradner); Vigo (Blatchley).

Additional records are: Knox (Schneck); Monroe (Mottier); Putnam (Grimes); Tippecanoe (Coulter); Blackford, Kosciusko, Noble, Porter, Posey, Starke, Warren and Wells (Deam).

Economic uses. Wood and uses similar to that of the white oak.

6. *Quercus Michaúxii* Nuttall. COW OAK. BASKET OAK. Plate 49. Bark gray, flaky; twigs stout, dark green and hairy, soon becoming smooth, reddish-brown and finally gray; winter buds ovoid or oval, acute, reddish, somewhat hairy, about 6 mm. ($\frac{1}{4}$ inch) long; leaves on petioles 1-3 cm. ($\frac{3}{8}$ - $1\frac{1}{4}$ inches) long, obovate or oval, 7-18 cm. (3-8 inches) long, short taper-pointed at the apex, wedge-shaped or narrowly rounded at the base, margin coarsely and deeply toothed, the teeth rounded, leaves hairy on both surfaces when they unfold, at maturity becoming firm, smooth and dark green above, paler beneath and remaining densely covered with whitish hairs; acorns sessile or nearly so, solitary or in pairs; nut ovoid, 2-3 cm. ($1-1\frac{1}{4}$ inches) long, hairy at the apex, enclosed for about half its length by the thick and deeply cup-shaped cup which is somewhat flat at the base and pubescent within; scales mostly acute, pubescent and much thickened on the outer face.

Distribution. Delaware south to Florida and west to Missouri and Texas. In Indiana it is found only in a few counties along the lower Wabash. Robert Ridgway says it is common in rich bottom lands along the lower Wabash. In size and habit it much resembles the swamp white oak for which it is often mistaken.

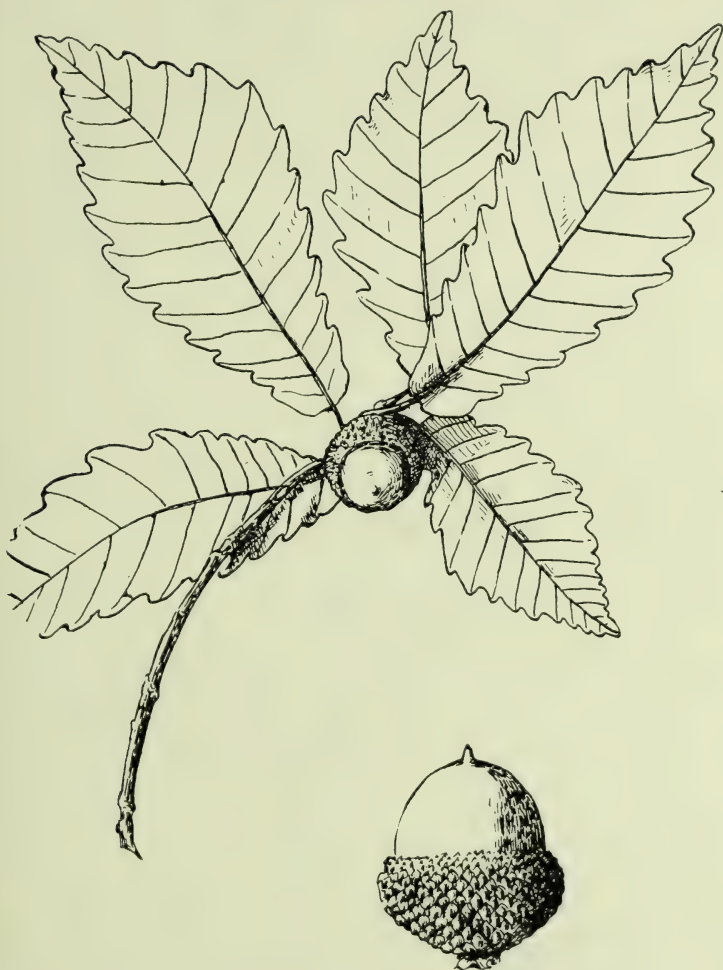
The published records of the distribution are as follows: Gibson (Ridgway); Knox (Ridgway) and (Thomas).

Additional records are: Gibson (Schneck).

Economic uses. Wood similar to the white oak and the supply so limited as to be of little commercial importance.

7. *Quercus Prinus* Linnaeus. CHESTNUT OAK. TANBARK OAK. Plate 50. Bark on the trunk, deeply fissured, the furrows wide and ridges continuous, dark gray brown or nearly black, smooth on the small branches; twigs purplish green, usually nearly smooth, turning to a gray, reddish or dark brown; winter buds ovate, taper-pointed, about 7 mm. ($\frac{1}{4}$ inch) long, light brown, scales blunt,

PLATE 49.



QUERCUS MICHAUXII Nuttall. Cow OAK. ($\times \frac{1}{2}$.) (Acorn, $\times 1$.)

PLATE 50.

QUERCUS PRINUS Linnaeus. CHESTNUT OAK. ($\times \frac{1}{2}$) (Acorn, $\times 1$.)

hairy and ciliate on the margins; leaves obovate to lanceolate, 1-2 dm. (4-8 inches) long, taper-pointed, rarely rounded at the apex, wedge-shaped, rounded or heart shaped at the base, margins coarsely round toothed, almost glabrous above and densely pubescent beneath when they appear, becoming at maturity firm, smooth and a dark green above and grayish pubescent beneath with prominent lateral veins; petioles 1-3 cm. ($\frac{3}{8}$ -1 $\frac{1}{4}$ inch) long; acorns on short, stout stalks, usually about 12 mm. ($\frac{1}{2}$ inch) long, solitary or in pairs; nut ovoid or oblong ovoid, usually taper-pointed, sometimes depressed at the apex, 2-3 cm. ($\frac{3}{4}$ -1 $\frac{1}{8}$ inch) long, hairy at the summit, enclosed for about a third of its length in the shallow cup-shaped cup; cup tapering at the base and hairy within; scales rather loose, thickened on the back, reddish-brown and pubescent; kernel sweetish.

Distribution. Maine to Ontario, south to Alabama and Tennessee. It is believed that in Indiana it is confined in its distribution to the knob area of the south central part and extending as far north as Brown County. It is frequent or common where it occurs and in Clark, Floyd, Scott and Washington counties it is generally associated with *Pinus virginiana*.

The published records of the distribution are as follows: Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Franklin (Meyncke); Gibson and Posey (Schneck)*; Hamilton (Wilson)**; Miami (Gorby)**; vicinity of New Albany (Clapp); Tippecanoe (Cunningham)***; Wayne (Petty and Markle)****.

Additional records are: Clark (Deam).

8. *Quercus Muhlenbergii* Engelm. CHINQUAPIN OAK. SWEET OAK. YELLOW OAK. TANBARK OAK. Plate 51. Bark on old trunks not thick, usually close and broken up on the surface into small scales, on some trees the bark separates in large flakes, usually a light gray; sometimes a dark gray; twigs at first green tinged with red, hairy, becoming smooth and gray; winter buds ovate, acute, about 5 mm. ($\frac{3}{16}$ inch) long, reddish-brown, blunt and more or less hairy; leaves on petioles 1-3 cm. ($\frac{3}{8}$ -1 $\frac{1}{4}$ inches) long, blades very variable, oblong-lanceolate to broadly obovate, 0.5-2 dm. (2-8 inches) long, usually taper-pointed, sometimes rounded, wedge-shaped, narrowed or sometimes slightly cordate at the base, margins coarsely and regularly toothed, primary veins straight prominent and ending in a gland in the points of the teeth, teeth in-

*Dr. Schneck in his notes says this reference should read *Quercus Michauxii* Nuttall.

**It is believed these records are based on broad leaf forms of *Quercus Muhlenbergii*.

***Should be referred to *Quercus Muhlenbergii*. Acad. Science 1901: page 300.

****No doubt this is *Quercus Muhlenbergii*.

PLATE 51.



QUERCUS MUHLENBERGII Engelm. CHINQUAPIN OAK (x $\frac{1}{2}$.)
(Acorns, x 1.)

curved, leaves hairy above and below when they unfold, becoming at maturity thick, smooth and bright green above, paler and pubescent beneath, sometimes silvery pubescent below; acorns sessile or nearly so, solitary or in pairs; nut ovate or oval, 1.5-2 cm. ($\frac{1}{2}$ - $\frac{3}{4}$ inch) long, pubescent at the summit, enclosed for $\frac{1}{4}$ - $\frac{1}{2}$ its length in a thin, cup-shaped, light or silvery gray cup which is pubescent within and hoary pubescent without; scales acute or somewhat blunt, thickened at the base; kernel sweet and edible.

This oak has been the subject of much study on account of the great variation of its leaves and fruit. On some trees the leaves from the top of the tree will be very thick, narrow, with long, sharp and incurved teeth, while the leaves from the lower branches will be rather thin, broadly obovate and with short and almost straight teeth. It has not been noted that the depth of the cup varies to any great extent on the same tree, but on some trees the cups are very shallow with oblong nuts, while on other trees the cups are deep and with ovoid nuts. As a rule the acorns with a shallow cup are smaller than those with the deep cup. Specimens with the broad leaves and deep cups have led some to call the tree chestnut oak (*Quercus Prinus*), from which it may easily be distinguished by the bark on the trunk of the tree. The bark on the chestnut oak is deeply furrowed and in color resembles the red oak group of oaks.

Distribution. Vermont to Minnesota, south to Florida and west to Texas. Found in all parts of Indiana. In the northern part it is usually found along the banks of streams, where it is often frequent. At a distance from the streams and lakes it is generally quite rare. In the western and southwestern parts it is generally frequent along the dry banks of streams and on gravelly or clayey hills. In the southern part of the State it becomes more abundant, and is often frequent or common along the bluffs of streams and on the limestone knobs. In our area in good soil it is a large tree.

The published records of the distribution are as follows: Bartholomew and Brown (Elrod); Cass (Benedict and Elrod) and (Coulter); Clark (Baird and Taylor); Dearborn (Collins); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jackson (Elrod); Jay (M'Caslin); Jefferson (Coulter) and (Young); Kosciusko (Clark); Lake (Higley and Radden); Marion (Wilson); Miami (Gorby); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Tippecanoe (Cunningham); Vigo (Blatchley); Wabash (Benedict and Elrod).

Additional records are: Crawford and Gibson (Schneck); vicinity of New Albany (Clapp); Posey (Wright); Putnam (Grimes) and (MacDougal); Tippecanoe (Coulter) and (Dorner); Allen, Brown, Decatur, Franklin, Hendricks, Jennings, Knox, Marion, Morgan, Posey, Sullivan, Warren and Wells (Deam).

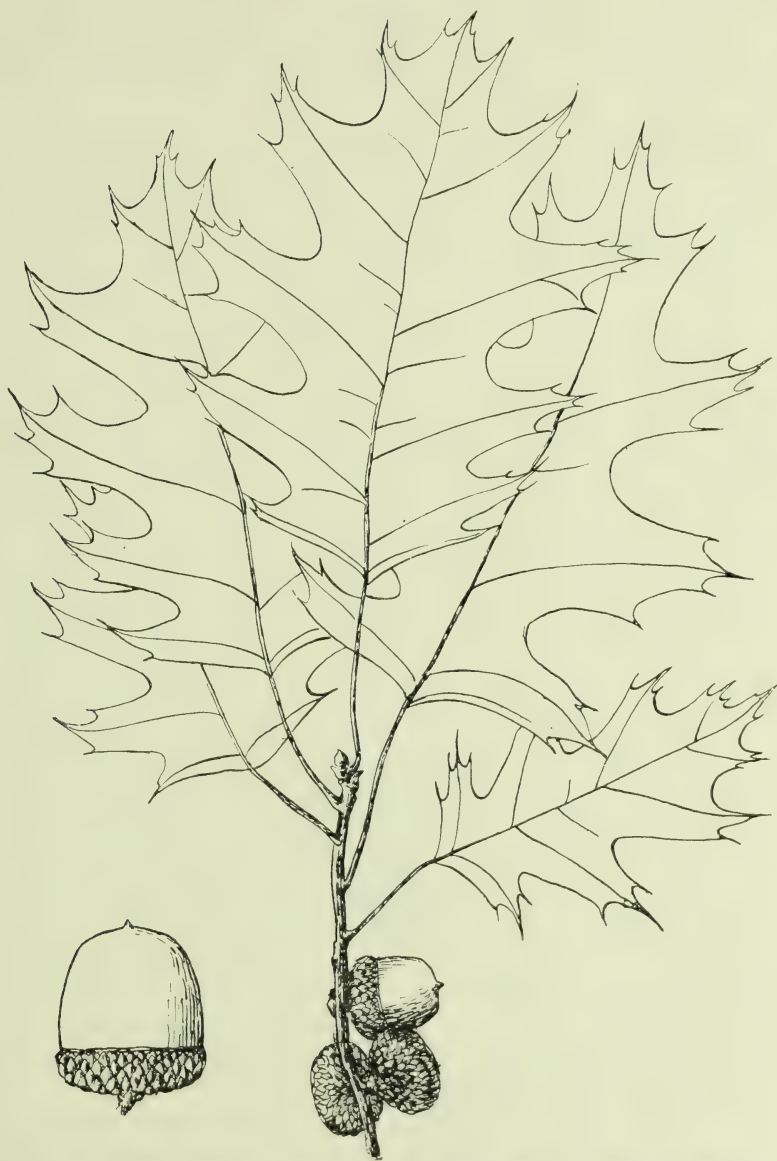
Economic uses. Wood heavy, hard, strong, close-grained, seasons with some difficulty. Uses same as that of white oak.

9. *Quercus rubra* Linnæus. RED OAK. Plate 52. Bark on young trees and on the small branches of old trees smooth and light gray, becoming on old trunks rather regularly and coarsely fissured, ridges rounded, furrows usually not deep, dark gray; branchlets at first green and hairy, soon becoming smooth and a reddish-brown by the end of the season, and in two or three years gray; winter buds ovoid, pointed, the terminal at fruiting time about 6 mm. ($\frac{1}{4}$ inch) long, reddish or chestnut brown, the inner scales hairy, and the outer more or less hairy on the margins; leaves oblong or obovate, 8-22 cm. (3-9 inches) long, generally wedge-shaped at the base, sometimes truncate or rarely slightly cordate, divided into 5-11 lobes, commonly 9, lobes generally extending about half way to the midrib, lobes wedge-shaped, tapering from the base and mostly 3-toothed at the apex and tipped with long bristles, hairy when they unfold, becoming smooth and a dull dark green above, and smooth or with tufts of hairs in the axils of the veins and a yellow-green beneath; petioles 2.5-5 cm. (1-2 inches) long; acorns solitary or in pairs, sessile or on short stalks; nut ovoid, 2-2.5 cm. ($\frac{3}{4}$ -1 inch) long, flat at the base, rounded at the apex, gray or reddish-brown, more or less pubescent, especially at the apex, enclosed for about $\frac{1}{4}$ its length in a shallow saucer-shaped cup; cup flat at the base, rarely somewhat tapering; scales blunt, light or reddish-brown, the margins a darker and reddish-brown, covered more or less with a grayish pubescence.

Distribution. Nova Scotia and Minnesota, south to Florida and west to Kansas. It is more or less frequent or common throughout Indiana in moist rich woods and along streams. It is the largest and most valuable of the biennial oaks.

The published records are as follows: Cass (Benedict and Elrod) and (Coulter); Clark (Baird and Taylor) and (Smith); Clay (Wilson); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Clark); Marion (Wilson); Miami (Gorby); vicinity of New Albany (Clapp);

PLATE 52.

QUERCUS RUBRA Linnæus. RED OAK. ($\times \frac{1}{2}$.) (Acorn. $\times 1$.)

Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (Wilson); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod); Wayne (Petry and Markle).

Additional records are: Montgomery (Evans); Putnam (Grimes) and (MacDougal); Tippecanoe (Coulter); Jennings, Steuben and Wells (Deam).

Economic uses. Wood heavy, hard, strong, close-grained, light reddish-brown and sap wood thin. Used principally for building material, finishing lumber, car and wagon stock and heading.

Horticultural value. The red oak is one of the most desirable of our oaks for shade and ornamental purposes. It is adapted to a moist, rich soil, grows rapidly, branches large and ascending, has a clean appearance and is generally free from injurious pests.

10. *Quercus palustris* Du Roi. PIN OAK. SWAMP OAK. WATER OAK. Plate 53. Bark on mature trunks close with broken, shallow fissures, bark on small trees and branches smooth, from a gray to a dark brown in color; shoots at first hairy and reddish, becoming smooth and a dark reddish brown by the end of the season; winter buds ovate, taper-pointed at the apex, about 3 mm. ($\frac{1}{8}$ inch) long, scales blunt, light brown, nearly smooth, margins much broken and often ciliate; leaves ovate, oval to obovate in outline, 6-15 cm. ($2\frac{1}{2}$ -6 inches) long, acute at the apex, truncate or wedge-shaped at the base, deeply divided into 5-7 lobes, sinuses wide and rounded at the base, the lobes varying from triangular to obovate in outline and sometimes falcate, hairy and reddish when they first appear, becoming thin, smooth, shiny and dark green above, paler and smooth beneath except for the tufts of brownish hairs in the axils of the principal veins; petioles 2-5 cm. ($\frac{3}{4}$ -2 inches) long; acorns sessile or nearly so, solitary or in clusters; nut subglobose or ovoid, about 12 mm. ($\frac{1}{2}$ inch) long and about as wide, the ovate type about half as large and sharp-pointed at the apex, hairy, enclosed about $\frac{1}{4}$ its length in the saucer-shaped cup; cup usually nearly flat on the bottom, sometimes slightly taper-pointed at the base, the ovate type of fruit always with the tapering base, with a few hairs on the inside; scales blunt, reddish-brown and hairy except on the darker colored margins.

In all our area but one specimen has been noted that has the small ovate and sharp-pointed acorns. It was located in Wells County and has been destroyed. Dr. Geo. Engelmann says this form is found in the vicinity of St. Louis.

Distribution. Massachusetts and Michigan, south to Tennessee and west to Missouri. Found throughout Indiana. Infrequent in

PLATE 53.



QUERCUS PALUSTRIS Du Roi. PIN OAK. ($\times \frac{1}{2}$.) (Acorns, $\times 1$.)

the northern tier of counties, soon becoming frequent farther south. It is more or less frequent in the remaining part of the State, becoming somewhat common in the lower Wabash bottoms and in the "flats" in the southern counties. It prefers wet woods, borders of swamps and ponds and is rarely found in dryer situations. It is usually associated with the red oak, the pin oak taking the more moist locations. In the northern part of the state it is most commonly associated with the red, burr and swamp white oaks, soft maples, water elm and black ash. In the southern part with the sweet gum, red, burr and swamp white oaks, soft maples and water elm. Along the well drained banks of streams the red oak may be frequent and the pin oak rare or wanting, while at the same time it is common in near by wet woods or sloughs.

In all our area it is a medium or large tree. It is tardy in the natural pruning of its lower branches, and when the dead branches break off they usually do so at some distance from the trunk. The many stumps of the dead branches which penetrate to the center of the tree have given it the most common name pin oak.

The published records of the distribution are as follows: Carroll (Thompson); Cass (Coulter); Clark (Smith); Clay (Wilson); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Meyncke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Coulter); Knox (Ridgway); Kosciusko (Clark); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (Wilson); Steuben (Bradner); Vigo (Blatchley).

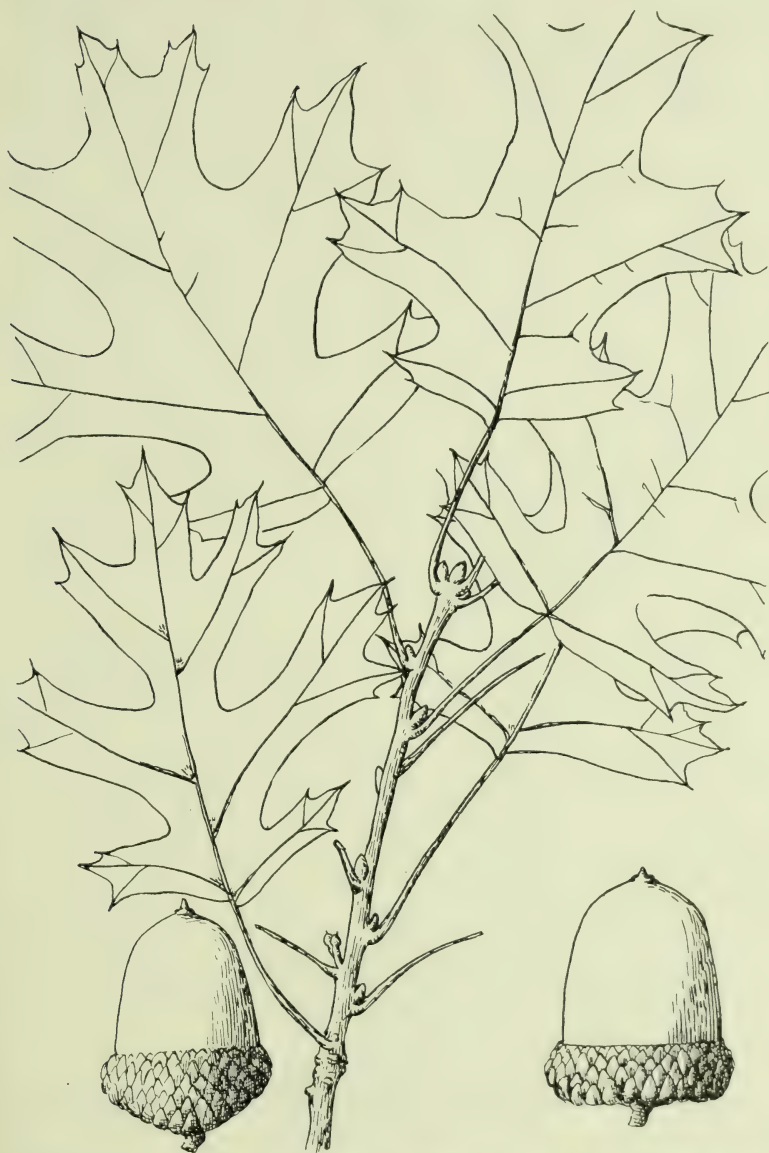
Additional records are: Posey (Wright); Putnam (Grimes); Tippecanoe (Coulter); Gibson, Posey, Sullivan and Wells (Deam).

Economic uses. Wood and uses similar to that of the red oak.

Horticultural value. For street and ornamental planting it is the most desirable of all the oaks. It is adapted to a moist soil, grows rapidly, a medium sized tree, produces a dense shade and in the open develops a pyramidal crown. Like the other oaks it is somewhat difficult to transplant on account of its large tap root. For this reason in planting oaks small seedlings should be used.

11. *Quercus Schnéckii* Britton. RED OAK. (*Quercus texana* Buckley). Plate 54. Bark of young trees smooth, becoming on old trees dark brown tinged with red, fissured, ridges flat, furrows usually not deep and wide; branchlets at first greenish and hairy, becoming reddish and finally smooth and a light brown; winter buds broad or narrow ovoid, the terminal ones at fruiting time about 5 mm. (1/5 inch) long, rather blunt at the apex, scales light

PLATE 54.

QUERCUS SCHNECKII Britton. RED OAK. ($\times \frac{1}{2}$) (ACORN, $\times 1$.)

brown, glabrous or nearly so; leaves ovate to obovate in outline, generally 8-18 cm. (3-7 inches) long, generally truncate at the base, sometimes wedge-shaped, 5-9 lobed, the lobes extending more than half way to the midrib, the middle lobes generally $1\frac{1}{2}$ or more times as long as the undivided part of the leaf, subtended by these lobes, usually 2-3 times as long, lobes oblong, wedge-shaped or widest at the apex, sinuses variable and rounded at the base, some of the lobes somewhat divided at the apex and ending in several sharp teeth, at maturity bright green, shiny and smooth above, paler or yellow-green and smooth beneath except for tufts of brown hairs in the axils of the primary veins; petioles generally 2-5 cm. (1-2 inches) long; acorns solitary or in pairs, sessile or nearly so; nut ovoid, those of the northern part of the State about 17 mm. ($\frac{5}{8}$ inch) long and nearly as wide, those of the lower Wabash Valley about 21 mm. ($\frac{3}{4}$ inch) long and somewhat narrower, reddish-brown, covered more or less with gray hairs, inside of shell densely covered with very pale brown hairs, enclosed for about $\frac{1}{3}$ its length in the deeply saucer-shaped cup; cup generally tapering at the base, sometimes rounded or nearly flat; scales blunt, their margins thin, broken, sometimes the end tinged with red, covered or nearly so with gray scales or hairs, giving them a gray woolly appearance.

Distribution. Iowa and northern Indiana south to Florida and west to Texas. The distribution in Indiana has not been determined. In Wells County it is associated with the red oak and is equally abundant. According to Ridgway and Schneck, it is frequent in the lower Wabash bottoms and to a great extent supplants the red oak. It is believed that it is more or less frequent along the Wabash and its tributaries.

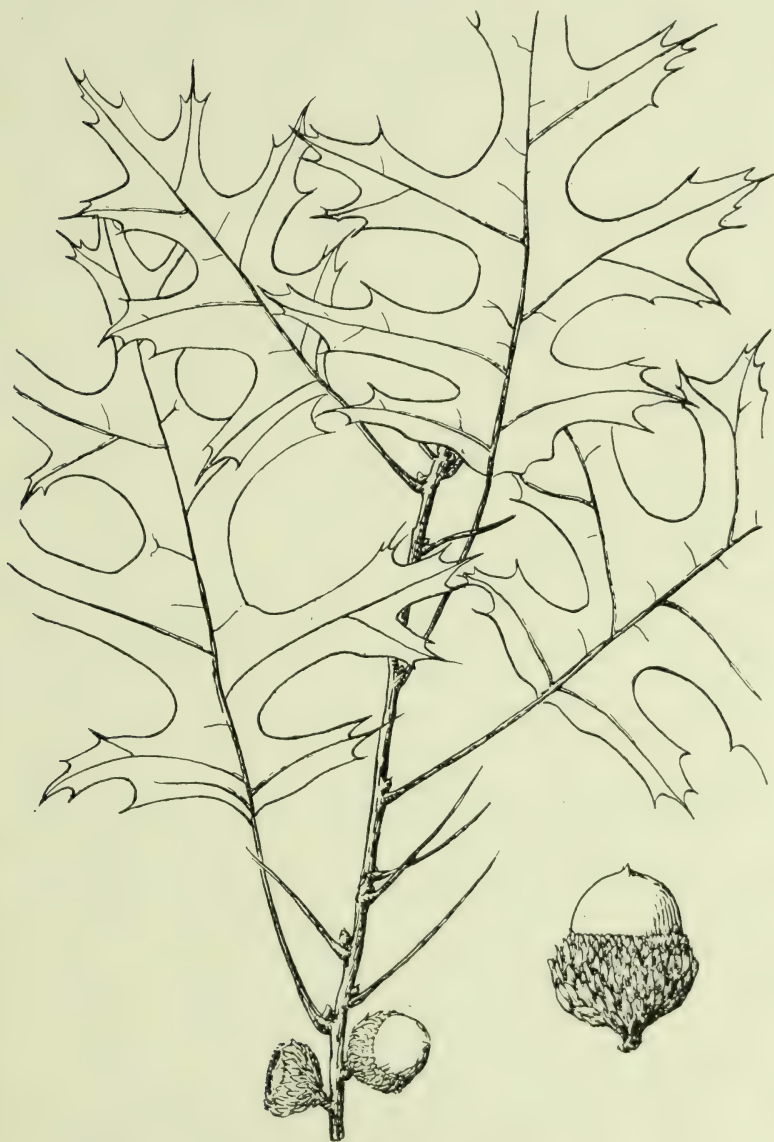
This species so closely resembles *Quercus rubra* that it is not commonly separated from it. It may generally be distinguished by the leaves being deeper lobed and by its smaller fruit. In Wells County the fruit is generally $\frac{1}{4}$ smaller than *Quercus rubra* and nearly the same shape. In the Lower Wabash bottoms it is generally about the same size and somewhat longer.

The published records of the distribution are as follows: Bartholomew (Elrod); Gibson, Knox, Posey and Vermillion (Schneck); Knox (Ridgway).

Additional records are: Posey and Wells (Deam).

Economic uses. Wood similar and uses the same as that of the red oak.

PLATE 55.



QUERCUS COCCINEA Muenchhausen. SCARLET OAK. ($\times \frac{1}{2}$.)
(Acorn, $\times 1$.)

12. *Quercus coccínea* Muenchhausen. BLACK OAK. RED OAK. SCARLET OAK. Plate 55. Bark of the trunk dark brown, irregularly fissured, bark of the twigs smooth and reddish-brown, inner bark red; winter buds ovoid, about 7 mm. ($\frac{1}{4}$ inch) long, somewhat blunt at the apex, reddish-brown, more or less hairy, especially near the apex; leaves oval or obovate in outline, 7-15 cm. (3-6 inches) long, truncate or wedge-shaped at the base, divided into 5-9 lobes, usually 7, the sinuses wide and rounded at the base, the lobes measured along the midrib from the tip to the base of the sinuses more than twice as long as the undivided part of the leaf, the terminal lobe 3-toothed, the middle lobes the largest, frequently with two small lobes, the midrib of the two basal lobes usually curved backward, the midrib of the remaining lateral lobes ascending, leaves red and hairy when they expand, becoming at maturity a bright green and smooth above, paler and smooth beneath or with a few hairs on the veins and in the axils; petioles 4-6 cm. ($1\frac{1}{2}$ -2 $\frac{1}{2}$ inches) long; acorns sessile or nearly so, solitary or in pairs; nut oval or oblong-ovoid, 1.5-2 cm. ($\frac{3}{4}$ inch) long, enclosed for $\frac{1}{2}$ - $\frac{2}{3}$ its length, covered with a coat of brown hairs to the top of the cup, usually glabrous above the cup; cup deep, stout, top-shaped, smooth within, the green cup presenting a glossy appearance; scales acute, closely appressed when green, somewhat spreading at the top of the cup on drying, their tips covered with hairs which give the top of the cup a hoary appearance, the lower scales somewhat thickened at their bases; kernel white within, less bitter than that of the black oak.

Distribution. Maine to Minnesota and southward to North Carolina and Missouri. Found throughout Indiana, usually in dry, sandy or gravelly soil in the northern and southwestern parts and on the dry hills in the southern part. In the northwestern counties bordering Lake Michigan it is locally somewhat frequent. In the northeastern and eastern-central parts it is very rare, or does not occur at all. It is locally frequent in the western-central counties, becoming frequent or common in the southwestern counties. In the whole of the southeastern part it is more or less frequent on the hills associated with the black and white oaks and black hickory. In all of its range it is generally associated with the black oak from which it is not usually separated. It is commonly classed as a black or red oak, which in general appearance, especially the bark, it resembles. It may be separated from the black oak by its somewhat rougher outer bark and its red inner bark, by its shiny cup, closer appressed scales and by the white kernel of the nut. It

differs from the red oak in that it usually grows in dry soil, has the leaves deeper lobed, acorn about half the size and with a deeper cup.

The published records of the distribution are as follows: Cass (Coulter); Clark (Smith); Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Meyneke); Gibson (Schneck); Jefferson (Coulter) and (Young); Knox (Ridgway)*; Kosciusko (Clark); Miami (Gorby); Noble (Van Gorder); Posey (Schneck); Vigo (Blatchley).

Additional records are: Clark (Deam); Putnam (Grimes); Tippecanoe (Coulter).

Economic uses. Wood similar to the red oak though not so valuable.

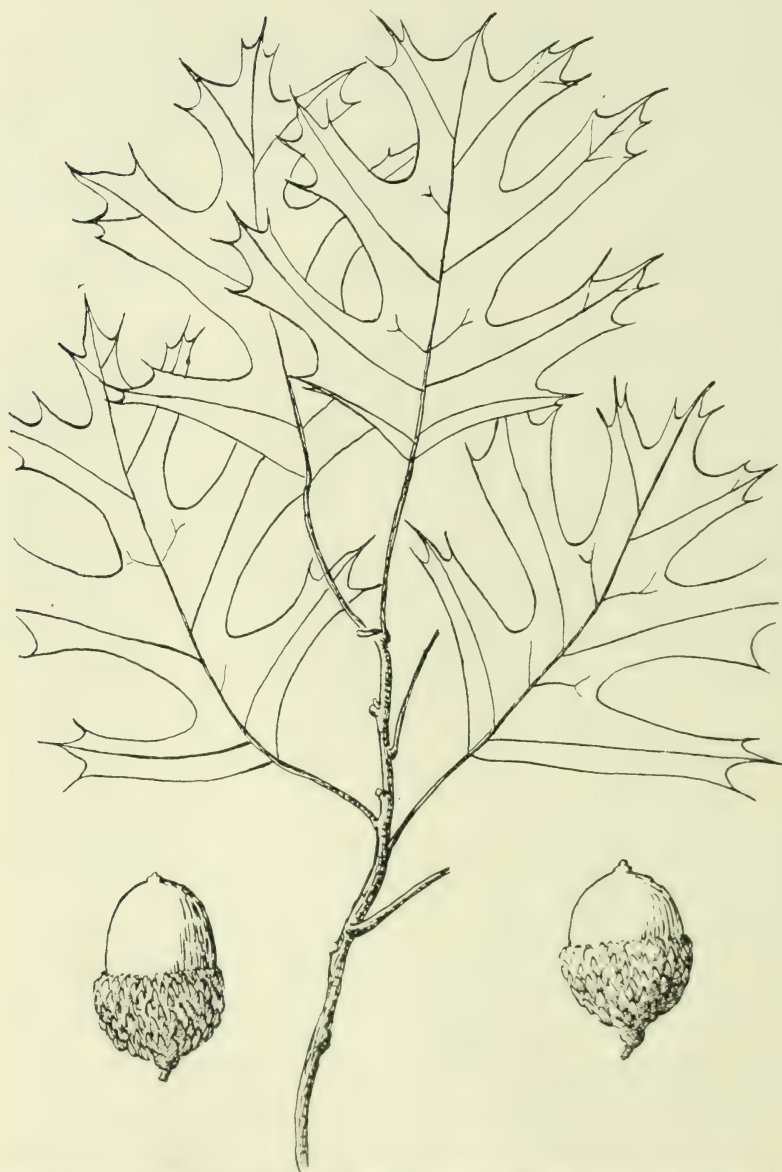
13. *Quercus ellipsoidalis* E. J. Hill. PIN OAK. Plate 56. Bark on the trunk a gray or dark brown, fissured, inner layers yellow; branchlets at first hairy, becoming smooth and a grayish or reddish-brown; winter buds ovate, taper pointed, about 5 mm. ($\frac{1}{8}$ inch) long, reddish-brown, scales more or less hairy with ciliate margins; leaves oval to nearly orbicular or obovate in outline, 7-15 cm. (3-6 inches) long, truncate or wedge-shape at the base, 5-7 lobed, usually 7-lobed, the terminal lobe oblong to triangular, the lateral lobes usually narrowed at their base, sinuses deep and rounded, leaves hairy when they unfold, becoming at maturity thin, smooth and a bright green above, paler and glabrous beneath, except that the axils of the principal veins have tufts of brown hairs, petioles usually smooth, 2.5-5 cm. (1-2 inches) long; acorns sessile or nearly so, solitary or in pairs; nut depressed oval or oblong, 1.5-2 cm. ($\frac{1}{2}$ - $\frac{3}{4}$ inch) long, more or less hairy, especially toward the base, enclosed from $\frac{1}{3}$ to $\frac{1}{2}$ its length by the cup; cup cup-shaped, tapering at the base, slightly pubescent within; scales rather blunt, slightly hairy; kernel yellow and bitter.

Distribution. Northwestern Indiana and southern Wisconsin west to eastern Iowa and southeastern Minnesota. In Indiana it has been reported from Lake County only. Specimens taken near Liverpool, Lake County, by Rev. E. J. Hill, are in the Deam herbarium. In its range it has been commonly mistaken for the pin oak (*Quercus palustris*) which it closely resembles.

Commonly found on dry or upland ground, although it grows in moist or wet soils. Of the bristle tipped oaks, it is most frequently associated with the red and scarlet oaks.

**Quercus Schneckii* Britton.

PLATE 56.



QUERCUS ELLIPSOIDALIS E. J. Hill. PIN OAK. (x $\frac{1}{2}$.) (Acorns, x 1.)

PLATE 57

QUERCUS VELUTINA Lamarck. BLACK OAK. ($\times \frac{1}{2}$.) (Acorn, $\times 1$.)

14. *Quercus velutina* Lamarek. BLACK OAK. YELLOW OAK. Plate 57. Bark on trunks deeply fissured, thick, not scaly, dark brown to nearly black, rarely light brown, inner bark deep orange, bark on young branchlets smooth and dark brown; winter buds ovate, taper-pointed, hairy, scales blunt, rusty pubescent, about 8 mm. ($\frac{1}{3}$ inch) long; leaves obovate to oblong, very variable in size and form, usually 12-18 cm. (5-7 inches) long, 5-9 lobed, usually 7-lobed, truncate or wedge-shaped at the base, the lateral lobes varying from ovate to obovate, the sinuses generally deep and wide and rounded at the base, although the margins of some of the obovate type are very shallow lobed, hairy when they first appear, becoming at maturity thin and firm, smooth, glossy and a bright green above, paler or a yellow green beneath, usually smooth, sometimes with hairs in the axils of the veins, or rarely the whole under surface covered with hairs; the leaves on some individuals approach the scarlet oak in shape, but on the whole are a little larger; petioles 2-8 cm. ($\frac{3}{4}$ -3 inches) long, usually smooth, sometimes hairy; acorns sessile or nearly so, solitary or in pairs; nut ovoid, oblong, or subglobose, 1.5-2 cm. ($\frac{1}{2}$ - $\frac{3}{4}$ inch) long, more or less covered with hairs, especially near the summit and the part enclosed by the cup, enclosed for about half its length in the cup-shaped cup; cup rounded at the base, hairy within; scales light brown, rather blunt pointed, hoary pubescent, loose above the middle, sometimes appearing as a fringe.

Distribution. Maine, Ontario and Minnesota south to Florida and west to Texas. Found throughout Indiana in dry, sandy, and sterile soil. In the northern counties on the gravelly hills it is frequent or common; in some of the dry sandy areas and on the dune region of Lake Michigan it is the principal species, and sometimes forms almost pure stands. In the east central part of the State it varies from very rare to somewhat frequent. In Wells County a few trees are found in two localities only about 20 miles apart. In the western and southern parts of the State it is frequent to common on dry, sandy or gravelly soil and on the sterile hills. While not so uniformly distributed throughout the State as the white oak, yet in point of number it nearly equals it, or may even exceed it.

The published records of the distribution are as follows: Clark (Baird and Taylor) and (Smith); Clay (Wilson); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Coulter); Knox (Ridgway) and

(Thomas); Kosciusko (Youse); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Posey (Schneck); Putnam (Wilson); Steuben (Bradner); Vigo (Blatchley).

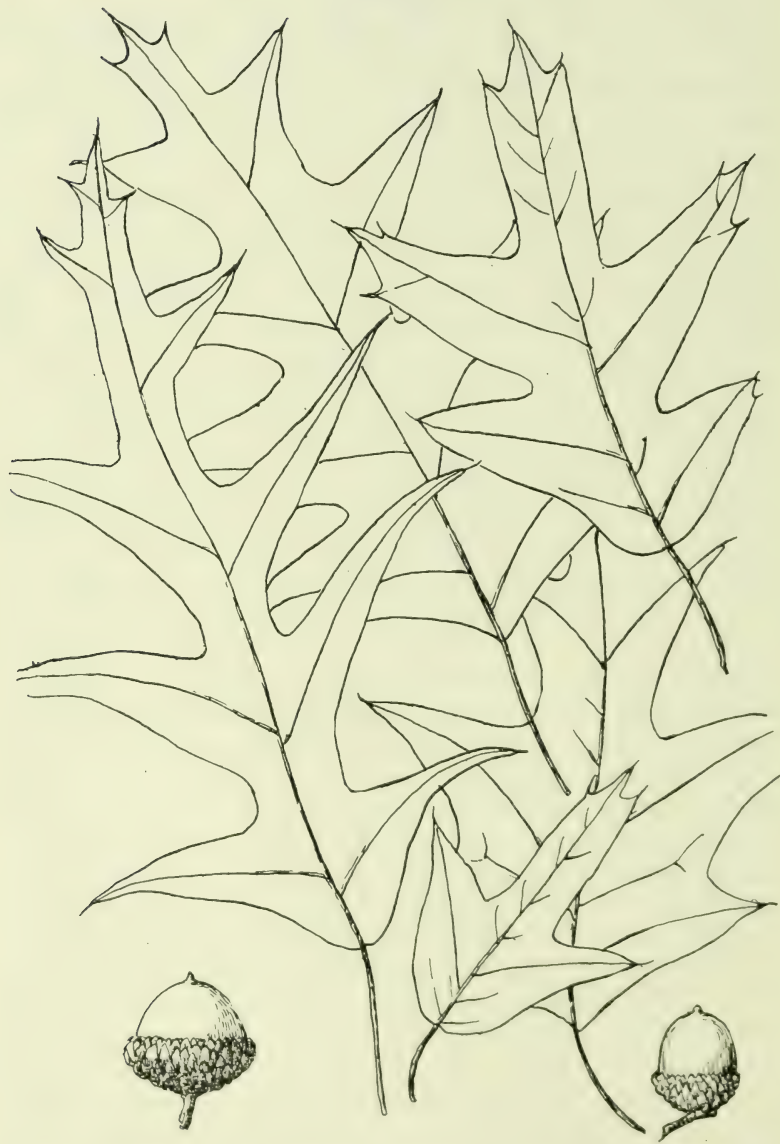
Additional records are: Tippecanoe (Coulter); Crawford, Floyd, Franklin, Laporte, Owen, Posey, Steuben and Wells (Deam).

Economic uses. Wood heavy, hard, strong, coarse-grained and not as valuable as the red oak, from which it is not distinguished commercially. Uses similar to that of the red oak.

15. *Quercus falcata* Michaux. BLACK OAK. RED OAK. Plate 58. Bark thick, rather deeply fissured, furrows usually narrow, sometimes wide, ridges generally broad, and broken into short plates about 0.5 dm. (2 inches) long, varying from a light to a dark gray, the outer dead bark reddish, the inner layers orange tinged with red; shoots at first hairy, becoming at maturity nearly smooth or remaining hairy, greenish-red or gray-brown, the second year becoming a dark gray brown; terminal winter buds ovoid, sometimes somewhat angled, generally 4-6 mm. ($\frac{1}{5}$ inch) long at time of fruiting, acute, light reddish-brown, more or less pubescent, scales blunt; leaves ovate, oblong or obovate, very variable in outline, 8-22 cm. (3-9 inches) long, generally somewhat curved, wedge-shaped, rounded or truncate at the base, shallow or deeply lobed, generally about $\frac{2}{3}$ of the distance to the midrib, lobes 3-11, commonly 5-9, the number, size and shape of the lobes exceedingly variable, the longest lateral lobes are generally near the middle of the leaf, sometimes the lowest pair, sometimes the upper pair are the longest, terminal lobe triangular or oblong, generally widest at the base, although frequently widest at the apex, lateral lobes widest at the base and gradually becoming narrower toward the apex, rarely somewhat wider at the apex, generally somewhat curved, lobes generally sharp pointed, sometimes wide-angled or rounded at the apex, margins of the lobes entire, wavy, toothed or lobed, sinuses wide and rounded at the base, dark green and smooth above at maturity, generally densely pubescent beneath; petioles 1-6 cm. ($\frac{3}{8}$ -2 $\frac{1}{2}$ inches) long, pubescent, generally yellow; acorn sessile or nearly so; nut broadly ovoid, nearly flat at the base, rounded at the apex, about 1 cm. ($\frac{3}{8}$ inch) long, more or less pubescent all over, light brown, enclosed for nearly half its length by the deep cup-shaped cup; cup rounded at the base or somewhat tapering, pubescent within; scales blunt, pubescent, reddish-brown, the margins darker and smooth.

Distribution. New Jersey and Missouri, south to Florida and west to Texas. In Indiana it is confined to a few counties in the

PLATE 58.



QUERCUS FALCATA Michaux. SPANISH OAK. ($\times \frac{1}{2}$.) (Acorn, $\times 1$.)

southwestern part of the State. Dr. Schneck reported it from Gibson and Posey counties as very rare. Ridgway reports it from Gibson County as common in clayey and poor soil but rare in rich soil. He remarks that the bark of the specimens found in rich soil was light and scaly, like that of the white or chinquapin oaks, while the bark of those found on clayey soil was darker and resembled that of the true black oaks. In Point Township in Posey County, in which Dr. Schneck did not work it is the most common oak. It is usually found in low ground and is associated with *Quercus bicolor*, *Quercus palustris*, *Quercus Schneckii*, *Quercus stellata* and *Quercus velutina*. The whole of this township is low and a peculiar feature is to find the preceding oaks intimately associated. In this locality it is one of the largest trees, frequently attaining a diameter of 10 dm. (40 inches). Sometimes the lower branches shade off tardily which gives the tree the appearance of the pin oak.

This is the Spanish oak of text books, but no one in this State was found who recognized it by that name. A majority of the persons questioned answered that it was a "kind of a black or red oak."

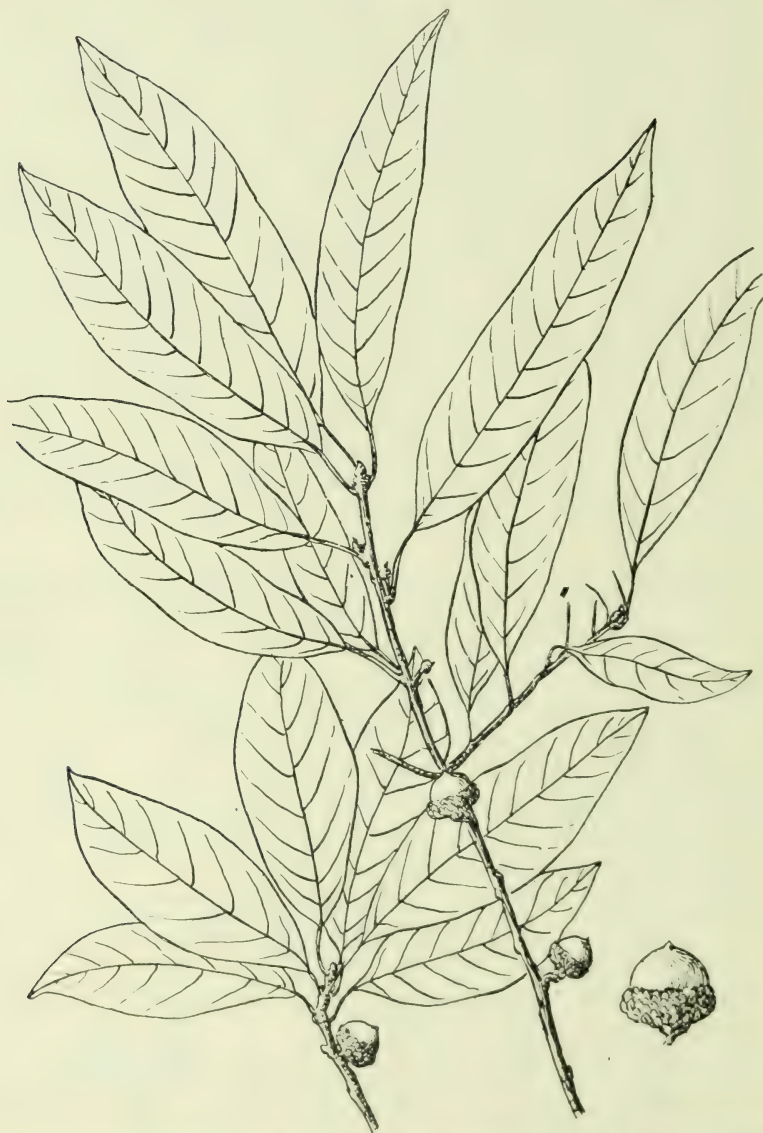
This species by some authors has been divided into two species, but it is believed the characters on which the division is made are not constant. A study of hundreds of trees in the lower part of Posey County in May, September and November shows that the bark will vary from a light to a very dark gray; that the leaves on the same tree will sometimes vary from 3-lobed to 11-lobed, and the bases from rounded or truncate to wedge-shaped. Trees that have the 3-5 lobed type of leaves with a rounded base on the lower branches will also have in the top the more characteristic 7-9 lobed leaves with a wedge-shaped base.

The published records of the distribution are as follows: Fountain (Brown); Gibson (Ridgway) and (Schneck); Posey (Schneck). Additional records are: Posey (Deam).

Economic uses. Wood and uses similar to that of the red oak.

16. *Quercus imbricaria* Michaux. BLACK OAK. SHINGLE OAK. PEACH OAK. JACK OAK. WATER OAK. Plate 59. Bark on the trunk deeply fissured, the ridges much broken, dark brown to nearly black; branchlets at first hairy, becoming smooth, gray, reddish or a dark brown; winter buds ovoid, pointed at the apex, about 3 mm. ($\frac{1}{8}$ inch) long, reddish brown, scales ciliate; leaves elliptic to oblong-lanceolate, sometimes somewhat falcate, 8-16 cm.

PLATE 59.



QUERCUS IMBRICARIA Michx. SHINGLE OAK. (x $\frac{1}{2}$.) (ACORN, x 1.)

(3-6 inches) long, acute at the base, bristle pointed, wedge-shaped or rounded at the base, margins entire, wavy or rarely 3-toothed at the apex on vigorous sterile branches, hairy on both surfaces and pinkish when they first appear, becoming smooth and deep green above and remaining hoary pubescent beneath; petioles 0.5-2 cm. ($\frac{1}{8}$ - $\frac{3}{4}$ inch) long; acorns nearly sessile, solitary or in pairs; nut ovoid or subglobose, about 1 cm. ($\frac{3}{8}$ inch) long, rounded at both ends, slightly hairy, enclosed from $\frac{1}{3}$ - $\frac{1}{2}$ its length in the cup-shaped cup; cup rounded at the base, shiny and usually with a few hairs on the inside; scales blunt, reddish-brown and hairy except on the darker colored margin.

Distribution. Pennsylvania and Wisconsin south to Georgia and west to Arkansas. Found throughout Indiana. Rare to very rare in the northern part and may be wanting in a few counties. In Wells County a few trees are found on the low border of a pond near the lake in Jackson Township which is the only place it is found in the county. It occurs more frequently in the southern counties, and in the southwestern counties it becomes more or less frequent, being associated with the black oak in dry, sandy or sterile soil, and with the pin oak in moist soil. In our area it is a medium sized tree, usually not very tall.

The published records of the distribution are as follows: Cass (Benedict and Elrod); Clark (Baird and Taylor) and (Smith); Clay (Wilson); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Knox (Ridgway); Kosciusko (Clark); Miami (Gorby); Noble (Van Gorder); Posey (Schneck); Putnam (Wilson); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod).

Additional records are: Jefferson (J. M. Coulter) and (Young); Posey (MacDougal and Wright); Tippecanoe (Coulter); Clark, Dubois, Gibson, Kosciusko, Sullivan, Vermillion, Warren and Wells (Deam).

Economic uses. Wood inferior and uses similar to that of the red oak.

17. *Quercus marylandica* Muenchhausen. BLACK JACK OAK. Plate 60. Bark deeply divided into plates about 2-7 cm. (1-3 inches) long, branchlets stout, at first covered with a coat of light brown hairs, becoming scurfy-pubescent, reddish-brown, and finally smooth or nearly so, ashy gray or brown; winter buds narrow ovoid, about 6 mm. ($\frac{1}{4}$ inch) long, sharp-pointed, light or reddish brown, covered with brown hairs; leaves broadly obovate, on petioles 0.5-3 cm.

PLATE 60.



QUERCUS MARYLANDICA Muenchhausen. BLACK JACK OAK. ($\times \frac{1}{2}$.)
(Acorn, $\times 1$.)

($\frac{1}{4}$ - $1\frac{1}{4}$ inches) long, blades 8-16 cm. (3-6 inches) long, sometimes almost as wide, usually 3-lobed; rarely 5-lobed, size and position of the lobes very variable, sometimes the margin is only undulate-lobed, generally only shallow lobed, the primary veins indicate the lobes and terminate in a bristle, very hairy when they expand, becoming very thick at maturity, smooth, shiny and a deep green above, paler or a yellow-brown beneath, with a coat of brown hairs, or sometimes smooth or nearly so late in the fall; acorns solitary or in pairs, sessile or nearly so; nut depressed ovoid or sub-globose, 1-2 cm. ($\frac{1}{2}$ - $\frac{3}{4}$ inch) long, usually puberulent near the apex, sometimes smooth, the inside of the shell covered with brown woolly hairs, nut enclosed from $\frac{1}{3}$ - $\frac{1}{2}$ its length in the depressed hemispheric cup which is more or less hairy within; scales blunt, light or reddish-brown, thickly covered with hairs, not closely appressed, those near the top of the cup rather loose.

Distribution. New York to Nebraska, south to Florida and west to Texas. Known definitely from southern Indiana only. It is believed that in its distribution in this state it is confined to the southern and southwestern part of the State, where it is usually associated with the post oak (*Quercus stellata*) on the tops and sides of sterile hills. W. B. Van Gorder has noted it in isolated colonies in a few places in Greene County, remarking that "the trees are of all sizes up to 3 dm. (12 inches) in diameter." In our area the black jack is a small gnarly tree seldom attaining a height of 9 m. (30 feet) or a diameter of 3 dm. (12 inches).

The published records of the distribution are as follows: Clark (Baird and Taylor) and (Smith); Fountain (Brown); Gibson (Ridgway) and (Schneck); Knox (Thomas); Posey (Ridgway) and (Schneck).

Additional records are: Clark and Crawford (Deam); Greene (Van Gorder); Knox (Blatchley); vicinity of New Albany (Clapp).

Economic uses. Too rare to be of any economic importance.

ULMACEÆ. THE ELM FAMILY.

Trees with watery juice; buds scaly; leaves alternate, simple, serrate, 2-ranked, pinnately-veined; fruit a samara or drupe.

- Leaves with primary veins parallel; flowers borne on the
twigs of the preceding season; fruit a samara..... 1 *Ulmus*.
Leaves 3-veined at the base; flowers borne on the twigs
of the season, fruit a drupe..... 2 *Celtis*.

1. **ÚLMUS.** THE ELMS.

Trees with deeply furrowed bark; leaves short petioled, with lateral veins prominent and parallel, oblique or unequally heart-shaped at the base, taper-pointed at the apex, mostly double-serrate; flowers clustered or racemose, expanding before the leaves in March or April; fruit a samara surrounded with a wide membranous margin, suborbicular to oblong, about 1-1.5 cm. ($\frac{1}{2}$ inch) long.

Inner bark mucilaginous; leaves very rough above; flowers nearly sessile, calyx lobes pubescent; fruit suborbicular, not ciliate..... 2 *U. fulva*.

Inner bark not mucilaginous; leaves smooth or somewhat rough above; flowers on slender pedicels, calyx lobes glabrous or pubescent only on the margins; fruit ovate to oval, ciliate.

Branches without corky wings; faces of samara smooth. . 1 *U. americana*.

Branches (at least some of them) with corky wings; at least one face of the samara pubescent.

Bud scales downy-ciliate, young branches pubescent; calyx lobes 7-9, glabrous or nearly so; wing of samara as wide as the seed..... 3 *U. Thomasi*.

Bud scales and branches almost glabrous; calyx lobes 5, glabrous; wing of samara not as wide as the seed..... 4 *U. alata*.

1. *Ulmus americana* Linnæus. WHITE ELM. WATER ELM. SWAMP ELM. GRAY ELM. BITTER ELM. SOUR ELM. RED ELM (frequently in the southwestern counties). Plate 61. Bark deeply fissured, the ridges rather broad, ashy gray or darker, especially in the swamps in the southwestern part of the State; twigs round, glabrous or slightly pubescent; buds glabrous; leaves oval to obovate-oblong, 5-12 cm. (2-5 inches) long, hairy both above and below when they expand, becoming at maturity dark green, smooth, or rough above, especially on vigorous shoots or on young trees, paler and smooth or somewhat pubescent beneath and yellow before falling; fruit on pedicels 1-3 cm. ($\frac{3}{8}$ -1 inch) long, jointed near the middle, ripening when the leaves begin to unfold.

Distribution. Quebec to Florida, west to Nebraska and Texas. Found in low ground in every county of the State. It is frequent to very common along flood plains, in swamps, on borders of lakes and on low ground generally. In our area it is usually a large tree, attaining a height of 20-30 m. (65-100 feet) and a diameter of 16 dm. (48 inches).

The published records of the distribution are as follows: Carroll (Thompson); Cass (Benedict and Elrod); Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown);

PLATE 61.



ULMUS AMERICANA Linnæus. WHITE OR WATER ELM. ($\times \frac{1}{2}$.)

Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Young); Knox (Ridgway); Kosciusko (Youse); Marion (Wilson); Miami (Gorby); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (Wilson); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod); Wayne (Petry and Markle).

Additional records are: Putnam (Grimes) and (MacDougall); Tippecanoe (Coulter) and (Dorner); Blackford, Crawford, Posey, Steuben and Wells (Deam).

Economic uses. Wood hard, tough, fibrous, flexible, difficult to split. Warps very much on seasoning. Principally used for slack cooperage. Also for agricultural implements, furniture, hubs, crates, basket handles, trunk slats, veneer cores, stable floors, staves and heading. Takes stains better perhaps than any of our native woods and when varnished makes a good imitation of oak, mahogany or walnut.

Horticultural value. It is a favorite for shade tree planting, easily propagated, grows rapidly, adapted to wet, moist or fairly dry soils, very variable in form, usually developing a vase shaped crown with large arching branches and numerous gracefully drooping branchlets, leaf period long, long lived. Recently in a few localities its use for shade tree purposes has been discouraged on account of the elm borer and elm-leaf beetle.

2. *Ulmus fulva* Michaux. SLIPPERY ELM. RED ELM. Plate 62. Bark deeply fissured, reddish-brown; twigs round, grayish or light brown, rough, pubescent; buds a dark chestnut-brown, covered with rusty-brown hairs; leaves ovate-oblong, 10-15 cm. (4-6 inches) long, sharply double-serrate, with callous-tipped teeth, hairy on both surfaces when they unfold, becoming at maturity thick, dark green, very rough above, paler and rough and more or less pubescent beneath, yellow before falling, fragrant when dried and remaining so for years; fruit ripening when the leaves are about one-half grown, on short pedicels about 3 mm. ($\frac{1}{8}$ inch) long, jointed near the base.

Distribution. Basin of St. Lawrence River south to Florida and west to North Dakota, Nebraska and Kansas. Found in limited numbers in all parts of Indiana. It is adapted to a rich moist soil and is found in drier situations than the white elm. It is associated with the sugar maple, beech, white ash, linn and yellow poplar, and is generally frequent where these species are rather abundant. A tree 20-25 m. (65-80 feet) high and 3-6 dm. (1-2 feet) in diameter.

The published records of the distribution are as follows: Carroll (Thompson); Clark (Baird and Taylor) and (Smith); Dearborn

PLATE 62.

ULMUS FULVA Michaux. SLIPPERY ELM. (x $\frac{1}{2}$.)

(Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyncke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter); Knox (Ridgway); Kosciusko (Clark); Marion (Wilson); Marshall (Hessler); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wayne (Petry and Markle).

Additional records are: Monroe (Blatchley); Putnam (Grimes) and (MacDougall); Tippecanoe (Coulter); Crawford, Delaware, Hamilton, Hancock, Knox, Madison, Posey and Wells (Deam).

Economic uses. Wood hard, strong, light when well seasoned, not warping as much as the preceding. On account of these qualities it is a favorite wood among farmers for wagon racks. Uses same as those of the white elm and in addition is used for bending stock, wagon poles, cross-ties and fence posts. The supply in Indiana is almost exhausted. The inner bark collected in the spring, is used in medicine on account of its mucilaginous character.

3. *Ulmus Thomási* Sargent. HICKORY ELM. ROCK ELM. Plate 63. Similar in appearance, size and habit to the white elm, from which it may be easily distinguished in the winter condition by the corky ridges of some of the branchlets. The bark of the trunk resembles that of the white elm; twigs brown and hairy, becoming smooth after the first season; leaves oval to obovate, 5-12 cm. (2-5 inches) long, hairy on both surfaces when they expand, becoming at maturity firm, smooth, or somewhat rough, rarely very rough, dark green and shiny above, paler and pubescent beneath; fruit ripening when the leaves are about one-half grown, on pedicels about 0.5-1 cm. ($\frac{1}{8}$ - $\frac{3}{8}$ inch) long.

Distribution. Quebec and Ontario south to northern New Jersey and westward to Nebraska and Missouri. The distribution of this species in Indiana is not definitely known, although it is believed to occur at least in sparing numbers in all parts of the State. It is not commonly separated from the white and slippery elm. It was no doubt more or less frequent throughout at least the eastern part of Indiana since it is known to have been frequent in Noble, Wells and Franklin counties. In some parts of the State persons familiar with timber separate what they call the red elm from the slippery elm. They say the red elm is difficult to split, has about two inches of sap wood, bark bitter and not mucilaginous; that the slippery elm splits more easily, sap wood about 1 inch thick and has a mucilaginous bark. It is believed that what is popularly known and referred to as the red elm is the hickory elm, because it cor-

PLATE 63.



ULMUS THOMASI Sargent. HICKORY OR ROCK ELM. (x $\frac{1}{2}$.)

responds to the qualities of the hickory elm and invariably, where the red and slippery elm are separated, the hickory elm occurs but is not recognized as such, and where the slippery and red elm are not separated, the hickory elm is known and recognized. It prefers a well drained soil, similar to that of the slippery elm.

The published records of the distribution are as follows: Dearborn (Collins); Franklin (Meyneke); Hamilton (Wilson); Noble (Van Gorder); Parke (Hobbs); Steuben (Bradner); Wayne (Petty and Markle).

Additional records are: Jefferson, Posey and Wells (Deam).

Economic uses. Wood hard, heavy, strong, flexible, close-grained with thick sap wood. Uses same as the two preceding. Supply is so limited as to be of no economic importance.

4. *Ulmus alata* Michaux. WINGED ELM. WAHOO ELM. Plate 64. Bark not deeply fissured, reddish-brown, branchlets with flat corky wings; leaves elliptic-oblong to ovate-oblong, 3-10 cm. (1-4 inches) long, nearly smooth above and hairy beneath when they unfold, becoming at maturity firm, dark green and smooth above, paler and pubescent below; fruit ripens before or with the unfolding of the leaves, pedicels 4-8 mm. ($\frac{1}{8}$ - $\frac{1}{4}$ inch) long.

Distribution. Northern Virginia and southern Indiana, south to Florida and west to Missouri and Arkansas. In Indiana it is a small tree and only locally found in a few counties bordering the Ohio River and in the southwestern part of the State. The record for the southwestern part of the State is based upon Dr. Schneck's report of the plants of that part of the State. An examination of Dr. Schneck's herbarium material for specimens of this species shows sheets with leaves and twigs only, which were at first labeled *Ulmus alata* and afterward the name *Thomasi* was written above. The writer made diligent search for this species in Posey County but was unable to find it. *Ulmus Thomasi* was rarely found and since Dr. Schneck did not report *Ulmus Thomasi* and subsequently substituted this name on his herbarium sheets, it is believed the preceding location should be referred to *Ulmus Thomasi*.

The published records of the distribution are as follows: Clark (Baird and Taylor); Crawford (Blatchley); Gibson (Schneck); Harrison (Blatchley); Miami (Gorby)*; Vigo (Blatchley)**.

Additional records are: Crawford (Deam).

Economic uses. Too rare to be of any economic importance.

*It is believed this record should be referred to *U. Thomasi* since the location is north of the range of *U. alata* and *U. Thomasi* was not reported from that locality where it occurs more or less frequently.

**Mr. Blatchley says this record was founded on a leaf and twig specimen and may have been *Thomasi*.

PLATE 64.

ULMUS ALATA Michaux. WINGED ELM. ($\times \frac{1}{2}$.) (Fruit, $\times 1$.)

2. CÉLTIS. THE HACKBERRIES.

Trees with leaves with 3 rarely 4-5 primary veins at the base; staminate flowers usually in clusters, pistillate solitary or few together in the axils of the leaves near the end of the twigs; fruit a drupe, ovoid or globose, pulp thin and sweet, frequently remaining on the tree until late winter or early spring; stone bony, wrinkled. In Indiana there are three species commonly not separated.

- Leaves sharply and coarsely serrate, nutlet 6-8 mm.
(about $\frac{1}{4}$ inch) long. 1 *C. occidentalis*.
Leaves entire or nearly so, nutlet 5-6 mm. (about $\frac{1}{5}$
inch) long.
Leaves of a rather broad ovate type, nutlet white,
shrub or a small tree. 2 *C. pumila*.
Leaves of an ovate-lanceolate type, nutlet yellowish-
white, a large tree. 3 *C. mississippiensis*.

1. *Celtis occidentalis* Linnæus. HACKBERRY. WHITE HACKBERRY. Plate 65. Bark on old trees irregularly furrowed, sometimes some of the surface warty and rough; fruiting branches smooth, young branches varying from smooth to very hairy; leaves of an ovate type, 6-18 cm. ($2\frac{1}{4}$ -7 inches) long, usually long taper-pointed, oblique or slightly cordate at the base, margins sharply serrate, leaves on the fruiting branches smooth or nearly so, those on the vegetative branches more or less rough and more or less hairy on both surfaces, petioles 0.5-2 cm. ($\frac{1}{5}$ - $\frac{3}{4}$ inch) long, more or less hairy above; flowering season April or May; fruit at maturity dark purple or nearly black, borne on stalks usually about one third longer than the leaf stalks; nutlet globose, longer than wide, 6-8 mm. ($\frac{1}{4}$ inch) long, 5-6 mm. ($\frac{1}{5}$ inch) wide, covering light brown.

Forms with pubescent twigs and leaves with a rough upper surface have been distinguished as variety ***crassifolia*** (Lamarck) Gray. There are many young trees with rough leaves and pubescent twigs and frequently both pubescent and smooth leaves occur on the same tree. The smooth ones in places exposed to the sun, and the rough ones in the shade of other leaves or other trees. It is believed this character is not constant enough to form a basis of division. A shrubby form with thick leaves of an ovate type, entire or nearly so, is found on the hills in southern Indiana, and is tentatively referred to this species.

Distribution. Valley of the St. Lawrence south to the Gulf States and west to Texas and Manitoba. Frequent in Indiana along streams and sparingly found in rich bottom lands and on limestone hills. In the greater part of our area it grows to be a

PLATE 65.



CELTIS OCCIDENTALIS Linnæus. HACKBERRY. ($\times \frac{1}{2}$.)

large tree, frequently 30 m. (95 feet) high and 1 m. (39 inches) in diameter.

The published records of the distribution are as follows: Carroll (Thompson); Clark (Baird and Taylor); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyncke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Clark); Lake (Higley and Radden); Marion (Wilson); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod); Wayne (Petry and Markle).

Additional records are: Crawford (Schneck); Lake (Hill); Montgomery (Evans); Putnam (Grimes) and (MacDougal); Tippecanoe (Coulter); Allen, Crawford, Dearborn, Delaware, Floyd, Fulton, Jefferson, Jennings, Lawrence, Monroe, Montgomery, Owen, Stark, Vermillion and Wells (Deam).

Economic uses. Wood yellowish-white, rather heavy, not strong, coarse grained, soft, shrinks moderately, works well, takes a good polish. Good clean lumber is sometimes sold for ash from which it is difficult to distinguish, at least before seasoning. The supply has been so reduced as to be of little economic importance. It is used principally for building material, interior house finishing, staves, heading, bending stock and implements.

Horticultural value. Adapted to a moist rich soil, stands pruning well but is somewhat difficult to train up to make desirable shade or ornamental trees. Frequently used as a shade tree but not equal to the elm which it most resembles. The leaves and twigs are frequently affected with galls which detract from the appearance of the tree.

2. *Celtis pumila* (Muhlenberg) Pursh. HACKBERRY. Plate 66. Bark thin, smooth and gray on the shrub-like forms, warty or fissured near the base on the larger forms, ridges flat and broken, dark-gray brown; twigs thorn-like, due to winter killing, at first reddish-brown and hairy, at maturity becoming somewhat smooth on the fruiting branches and remaining hairy on the vegetative branches, gray brown; leaves of an ovate type, broadly-ovate to oval-oblong, taper-pointed, unequal, rounded or sometimes cordate at the base, margins generally entire or nearly so, frequently coarsely toothed above the middle, rarely to near the base, hairy on both sides when they first appear, becoming thick at maturity, smooth or rough and dark green above, paler and smooth or nearly so beneath;

PLATE 66.



CELTIS PUMILA (Muhlenberg) Pursh. HACKBERRY. (x $\frac{1}{2}$.)

petioles 1-1.5 cm. ($\frac{3}{8}$ - $\frac{1}{2}$ inch) long, densely hairy above and smooth beneath; flowers appear in May; fruit, wine or dark maroon color, on stalks that curve upward, the stalks about the same length of the petioles, nutlets globose, slightly longer than wide, 5.5-6 mm. ($\frac{1}{5}$ inch) long, 5-5.5 mm. ($\frac{1}{5}$ inch) wide, covering white.

This species may be distinguished from the preceding by the relatively smaller leaves, many of which are entire or nearly so, by the flowers appearing about two weeks earlier, by the nutlet being smaller and the pits of the surface not so deep.

Distribution. Delaware south along the Atlantic coast, west through Pennsylvania to Kansas, Colorado and Utah. In Indiana it is known only from Lake County near the Calumet River at Millers. It is usually found in clumps on the dry wooded sand dunes. Generally a shrub and rarely attaining a diameter of more than 0.5 dm. (2 inches) and a height of 4 m. (13 feet).

This species was reported for the State by Prof. Stanley Coulter in the Proc. Ind. Acad. Science, 1900, page 143. The form reported by Dr. Schneck as occurring on the "rocky banks of Blue River" in Crawford County, is the entire leaved form referred to under the preceding species.

The published records of the distribution are as follows: Lake (Hill).

Additional records are: Lake (Deam) and (Umbach).

Economic uses. Too small and rare to be of any economic value.

3. *Celtis mississippiensis* Bosc. HACKBERRY. YELLOW HACKBERRY. 67. Bark on the lower part of the trunk of mature trees covered with wart-like excrecences, rarely somewhat irregularly fissured, bark of the upper part of the trunk resembling that of the beech; leaves of an ovate-lanceolate type, narrower than those of the preceding species, 4-10 cm. ($1\frac{1}{2}$ -4 inches) long, entire or occasionally with a few incurved teeth to about the middle of the blade, smooth at maturity both above and below; petioles 0.5-1 cm. ($\frac{1}{4}$ - $\frac{1}{2}$ inch) long, glabrous or nearly so; flowering season April or May; fruit orange red, on pedicels [about the length of the petioles of the leaves; nutlet yellowish-white, globular, about 5 mm. ($\frac{1}{5}$ inch) in diameter each way.

Distribution. Southern Indiana south to Florida and west to Missouri and Texas. In Indiana it is found only in the southwestern part where it is frequent or common along streams and in the lowlands. It is inclined to grow scrubby and crooked. It is medium sized and frequently becomes a half meter (18 inches) in diameter.

PLATE 67.



CELTIS MISSISSIPPIENSIS Bosc. YELLOW HACKBERRY. (x $\frac{1}{2}$.)

The published records of the distribution are as follows: Franklin (Haymond); Gibson (Schneck); Jefferson (Coulter); Knox (Ridgway); Posey (Schneck) and (Wright).

Additional records are: Gibson and Posey (Deam).

MORACEÆ. THE MULBERRY FAMILY.

Trees with a milky sap; leaves 2-ranked, serrate, entire or lobed, 3-5 nerved at the base; fruit berry-like.

- Branches without spines; leaves serrate; pistillate flowers in spikes; fruit berry-like, elongated, somewhat resembling the blackberry..... 1 *Morus*.
 Branches with spines; leaves entire; pistillate flowers in heads; fruit orbicular, usually about 5-10 cm. (2-4 inches) in diameter..... 2 *Toxylon*.

1. MÔRUS. THE MULBERRIES.

(From the Greek, *morea*, the mulberry.)

- Leaves rough above, pubescent beneath; staminate-flower spikes 2.5-5 cm. ($1\frac{1}{2}$ - $2\frac{1}{2}$ inches) long..... 1 *M. rubra*.
 Leaves smooth on both sides or nearly so; staminate-flower spikes 1-2 cm. ($\frac{1}{2}$ -1 inch) long..... 2 *M. alba*

1. *Morus rubra* Linnaeus. MULBERRY. Plate 68. Leaves broadly ovate, abruptly contracted into a long point, coarsely serrate, frequently 2-7 lobed, more or less cordate at the base; flowers appear in May or June with the leaves; pistillate spikes about half the length of the staminate; fruit ripens in July, cylindric, 1.5-3 cm. ($\frac{1}{2}$ - $1\frac{1}{4}$ inches) long, dark purple or nearly black at maturity.

Distribution. Western New England, southern Ontario, eastern Dakotas south to the Gulf States and west to Texas. Infrequent in all parts of Indiana, usually found as isolated trees. In the northern part of the State it is found in rich moist soil associated with the slippery elm, beech and sugar maple. In the southern part of the State it is found both in rich soil and on the clay hills. In our area it is a small tree 8-15 m. (25-50 feet) high, with a diameter seldom exceeding 6 dm. (24 inches).

The published records of the distribution are as follows: Carroll (Thompson); Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas);

PLATE 68.



MORUS RUBRA Linnæus. MULBERRY. (x $\frac{1}{2}$.)

Kosciusko (Clark); Marion (Wilson); Miami (Gorby); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wayne (Petty and Markle).

Additional records are: Marion (Shipman); Montgomery (Evans) and (Rose); Tippecanoe (Dorner); Bartholomew, Clark, Crawford, Dearborn, Fountain, Franklin, Hancock, Knox, Marshall, Montgomery, Owen, Posey, Wabash, Warren and Wells (Deam).

Economic uses. Wood light, soft, rather tough, coarse-grained, takes a good polish. Used principally for fence posts and crossties. Too rare to be of any economic importance. Fruit edible and sells on the market at about the same price as the blackberry.

Horticultural value. It is hardy and transplants easily. The fruit is a favorite with birds and squirrels. This tree could with advantage be planted along the borders of orchards to attract birds from the orchard fruits. The timber ranks next to the black locust and osage orange in value for fence post purposes.

2. *Morus álba* Linnæus. WHITE MULBERRY. A small crooked tree with white or pinkish fruit, introduced from the Old World, escaped from cultivation in the southern part of the State. The leaves are the principal food of the silk worm.

The published records of the distribution are as follows: Clark (Baird and Taylor); Delaware, Jay, Randolph and Wayne (Phinney); Jefferson (Coulter) and (Young); Kosciusko (Clark); Miami (Gorby); Posey (Schneck).

Additional records are: Jefferson (Deam); Putnam (Grimes); Union (Rose).

2. *TÓXYLON*. THE OSAGE ORANGE.

(From the Greek, *tozon*, bow, *tylon*, wood, meaning wood suitable for making bows)

***Toxylon pomíferum* Rafinesque. HEDGE. OSAGE ORANGE.** (*Mac-lura pomifera* (Rafinesque) Schneider.) Plate 69. Bark on young trees gray, becoming on old trees deeply fissured and somewhat shreddy, brown; mature twigs gray; spines about 1.5 cm. ($\frac{3}{4}$ inch) long; leaves 6-12 cm. ($2\frac{1}{2}$ -5 inches) long, pointed, rounded or somewhat cordate at the base, smooth and glossy green above; flowers appear in May or June; fruit about 1 dm. (4 inches) in diameter, resembling an orange.

Distribution. Missouri and Kansas south to Texas. A small thorny tree introduced into Indiana for hedge fences. Since land has become so valuable its use has been discontinued and many

farmers are digging it up. It is subject to the San Jose scale, which is another objection to it. It has escaped in several parts of the State, freely so in the southwestern part.

PLATE 69.



TOXYLON POMIFERUM Rafinesque. OSAGE ORANGE. ($\times \frac{1}{2}$.)
Staminate branch on the left, pistillate on the right.

The published records of the distribution are as follows: Decatur (Ballard); Franklin (Meyneke); Hamilton (Wilson); Jefferson (J. M. Coulter); Kosciusko (Coulter)*; Tippecanoe (Thompson); Vigo (Blatchley).

*From cultivated tree, not escaped in this county

Additional records are: Montgomery (Evans); Putnam (Grimes); Knox (Deam).

Economic uses. Wood heavy, very hard and strong, the most durable in contact with the soil of any of our post timbers. Used principally for fence posts..

Horticultural value. Sometimes used for ornamental and shade tree purposes. Adapted to all kinds of soil, transplants easily and will endure all kinds of abuse and an excessive amount of smoke.

MAGNOLIACEÆ. THE MAGNOLIA FAMILY.

Buds pubescent; leaves entire, fruit fleshy, dehiscent.... 1 Magnolia.

Buds glabrous; leaves lobed; fruit a cone of dry carpels,

indehiscent..... 2 Liriodendron.

1. MAGNŌLIA. THE MAGNOLIAS.

(Named for Magnol, a distinguished botanist of Montpellier, France.)

Magnolia acuminàta Linnæus. CUCUMBER TREE. Plate 70. Bark furrowed; leaves oblong, some obovate, short-pointed, rounded or cordate at the base, in size and shape resembling the leaf of the pawpaw, 1-3 dm. (4-12 inches) long, very hairy when young, soon smooth and dark green above and smooth or nearly so beneath but paler in color; flowers large, about 6 cm. (2½ inches) long, bell-shaped, pale yellowish-green, appearing in May; fruit cylindrical, 5-7 cm. (2-2¾ inches) long, 1-2 cm. (¾-¾ inch) wide.

Distribution. Southern Ontario south along the Appalachian Mountains to Alabama and west to Eastern Arkansas. In Indiana it is a small tree and has been only rarely found in a few counties bordering on the Ohio River.

The published records of the distribution are as follows:* Clark (Baird and Taylor); Franklin (Meyneke); Jefferson (Coulter) and (Young); vicinity of New Albany (Clapp); Orange (Elrod and McIntyre) and (Ridgway); Tippecanoe (Coulter).**

Additional records are: Clark (Deam).

Horticultural value. In the south it is used extensively for shade purposes. Large trees are now growing in Indianapolis, Lafayette and Laporte, which indicate that it is hardy in Indiana. Its use for shade tree planting should be encouraged. It is adapted to a rich and moist soil, has a good habit of growth and produces a good shade.

*Reported by Phinney as occurring in eastern-central Indiana. Reference to Phinney's botany, which is now in the Indianapolis Public Library, in which he kept a record of the plants he noted says: Those that are marked with an X in black have been noted in Indiana and those marked with an X in red have been noted in Ohio and Pennsylvania. The *Magnolia acuminata* is marked in red, so this reference should be dropped.

**From cultivated tree.

PLATE 70.



MAGNOLIA ACUMINATA Linnæus. CUCUMBER TREE. (x $\frac{1}{2}$.)

2. LIRIODENDRON. THE TULIP TREE.

(From the Greek, *lirion*, lily and *dendron*, tree.)

Liriodendron Tulipifera Linnæus. POPLAR. YELLOW POPLAR. WHITE POPLAR. HICKORY POPLAR. WHITE WOOD. Plate 71. Bark furrowed; leaves 4-6 lobed, very variable in form, smooth, dark green and shiny above, paler beneath, large truncate and notched at the apex, about 12 cm. (5 inches) wide and equally as long, leaf stalks about the same length; flowers appear in May or June on the ends of the branches on stalks about 2 cm. (1 inch) long, large, bell-shaped, about 4 cm. (2 inches) deep, pale greenish-yellow, sometimes tinged with orange red at the base inside; fruit 5-7 cm. (2-2 $\frac{3}{4}$ inches) long, upright, many of which remain on the tree during the winter.

Distribution. Rhode Island and northern New York, south to northern Florida, west to eastern Missouri and Arkansas. It is well distributed in all parts of Indiana, occurring as somewhat frequent in the northern part, rather rare in a few counties; and more frequent in the southern part of the State, especially in the southwestern part where it attains its greatest development. It is adapted to a rich moist soil with good drainage. One of Indiana's largest and most useful trees.

The published records of the distribution are as follows: Carroll (Thompson); Cass (Benedict and Elrod) and (Coulter); Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Decatur (Ballard); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fayette (Hessler); Fountain (Brown); Franklin (Haymond) and (Meyncke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Coulter); Knox (Ridgway) and (Thomas); Kosciusko (Clark) and (Coulter); Lake (Higley and Radden); Marion (Wilson); Miami (Gorby); Monroe (Blatchley); vicinity of New Albany (Clapp); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (MacDougal); Shelby (Ballard); Steuben (Bradner); Tippecanoe (Cunningham); Vigo (Blatchley); Wabash (Benedict and Elrod).

Additional records are: Montgomery (Coulter) and (Evans); Putnam (Grimes); Tippecanoe (Coulter); Crawford, Decatur, Fountain, Grant, Hancock, Harrison, Huntington, Laporte, Morgan, Noble, Owen, Posey, Shelby, Steuben and Wells (Deam).

Economic uses. Wood light, weak, soft, stiff, straight and moderately coarse-grained, seasons and works well. The sap wood is white and the heart wood a light yellow. The wood of young and

PLATE 71.



LIRIODENDRON TULIPIFERA. Linnæus. TULIP OR YELLOW POPLAR.
($\times \frac{1}{2}$.) (Fruit, $\times \frac{3}{4}$.)

thrifty trees is almost white which gave rise to the name of "white poplar" and "hickory poplar" to distinguish it from the trees of slower growth with a greater percentage of heart wood. It is used for lumber, siding, shelving and excelsior. The inner bark is used in medicine as a stimulant and tonic.

Horticultural value. It grows rapidly, tall and with short side branches. Its beautiful foliage, the large, fragrant flowers and the fruit on the leafless branches in winter recommend it for shade tree purposes and it is being used more each year for this purpose. It is practically free from insects and fungous diseases. Experiments in growing this tree indicate that it is one of the best trees for reinforcing woodlots and other forest planting. It is propagated by planting seedlings, and little difficulty will be experienced if seedlings about .5 m. (18 inches) high are planted.

ANONACEÆ. THE CUSTARD APPLE FAMILY.

ASÍMINA. THE PAWPAW.

Asimina triloba (Linnæus) Dunal. PAWPAW. YELLOW PAWPAW. WHITE PAWPAW. Recently called the Hoosier banana. Plate 72. Bark smooth, somewhat ridged on very old trees; branchlets reddish-brown, hairy, becoming smooth; buds sharp-pointed, covered with hairs; leaves obovate, some narrowly so, sharp-pointed, wedge-shaped at base, 1-3 dm. (4-12 inches) long, green above, paler beneath, hairy when expanding, soon glabrous except on the veins beneath; petioles 5-10 mm. ($\frac{1}{4}$ - $\frac{1}{2}$ inch) long; flowers appear before or with the leaves, drooping; sepals 3, green; petals 6, maroon color; flowering season March or April; fruit begins to ripen about September 1st., 7-13 cm. ($2\frac{1}{2}$ -5 inches) long, light green, pulp white or yellow, with a few large, dark brown, flattened seeds.

Distribution. Southern Ontario east to eastern Pennsylvania, south to the Gulf States and west to eastern Nebraska, Kansas and Texas. Found in all parts of Indiana, though most frequently in the southern part. It is usually found in colonies in moist rich soil and most frequently associated with the beech and sugar maple.

A shrub or tree, sometimes attaining a height of 15 m. (48 feet) and a diameter of 2 dm. (8 inches). Prof. Stanley Coulter says: "Two forms, not separated botanically are associated in our area. They differ in time of flowering, in size, shape, color and flavor of the fruit, in leaf shape, venation and odor and in color of the bark. They are of constant popular recognition and are probably separate species, never seeming to intergrade." (Report of the Indiana State Geologist, 1899, page 745.)

PLATE 72.



ASIMINA TRILOBA (Linnæus) Dunal. PAWPAW. (x ½.)

The published records of the distribution are as follows: Cass (Hessler); Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Decatur (Ballard); Delaware, Jay, Randolph and Wayne (Phinney); Fayette (Hessler); Fountain (Brown); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Clark) and (Coulter); Lake (Blatchley); Marion (Wilson); Miami (Gorby); Monroe (Blatchley); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (MacDougal); Steuben (Bradner); Tippecanoe (Cunningham); Vigo (Blatchley); Wabash (Benedict and Elrod); Wayne (Petry and Markle).

Additional records are: Montgomery (Thompson); Putnam (Grimes) and (Lewis and Bridges); Tippecanoe (Coulter) and (Dorner); Bartholomew, Clark, Crawford, Decatur, DeKalb, Delaware, Howard, Huntington, Jackson, Jefferson, Jennings, Laporte, Monroe, Morgan, Porter, Posey, Shelby, Wells (Deam).

Economic uses. Wood very light, very soft, light yellow and coarse-grained. Supply is so limited as to be of no economic importance. The mature fruit is edible and relished by many persons. For years horticulturists have urged that the fruit of this tree be developed so that it might become one of our standard fruits.

Horticultural value. It is desirable for ornamental planting on account of its interesting foliage, beautiful and unique flowers and delicious fruit. It prefers the shade and when planted several should be grouped together.

LAURACEÆ. THE LAUREL FAMILY.

THE SÁSSAFRAS.

Sassafras Sassafras (Linnæus) Karsten. SASSAFRAS. RED SASSAFRAS. WHITE SASSAFRAS. (*Sassafras variifolium* (Linnæus) Karsten.) Plate 73. Bark aromatic, smooth on young trees, reddish-brown and deeply furrowed on old trees, resembling that of the black walnut; twigs yellowish-green, splotted with dark spots, young twigs hairy, soon becoming smooth; buds ovoid and pointed; leaves alternate, oval to obovate, margin entire or 1-3 lobed, sometimes 5 lobed (the accompanying plate was made from a specimen in the Deam herbarium, which has all the forms of the leaf on one twig), 10-15 cm. (4-6 inches) long, 5-10 cm. (2-4 inches) wide, hairy, when young, smooth at maturity; flowers appear in April or May before or with the leaves, greenish yellow; fruit ripens in August and September, about the size of a pea, blue black.

PLATE 73.



SASSAFRAS SASSAFRAS (Linnaeus) Karsten. SASSAFRAS. (x $\frac{1}{2}$.)

Distribution. Northern United States, south to the Gulf States and west to eastern Kansas and Texas. Found in all parts of Indiana. In the western, northwestern and extreme northern counties it is quite frequent and sometimes attains a diameter of more than 2 dm. (8 inches). In the southern counties it sometimes becomes a large tree.* In some counties of the eastern-central part it is rare. In the southern part of the State it is common everywhere and generally persists in cultivated fields for years. Here waste ground is soon covered with it. Sassafras is usually found on poor soil. In the northern part of the State it is generally found in dry, sandy or gravelly soil, or on the black and white oak land. In the southern part it is found everywhere, especially in sterile soil, and is usually associated with the persimmon.

In our area there are two forms of this tree. One is known as white sassafras which is nearly all sap wood and the bark of the roots is white. In contact with the soil the wood soon rots. The other is known as the red sassafras. The bark of the roots and the greater part of the wood is red, and is durable in contact with the soil.

The published records of the distribution are as follows: Cass (Hessler); Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Clark), (Coulter), (Scott) and (Youse); Lake (Higley and Radden); Marion (Wilson); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Posey (Schneck); Putnam (MacDougal); Steuben (Bradner); Tippecanoe (Cunningham); Vigo (Blatchley).

Additional records are: Montgomery (Evans); Putnam (Grimes); Tippecanoe (Coulter); Allen, Clark, Dubois, Gibson, Harrison, Jackson, Kosciusko, Lake, Laporte, Marshall, Monroe, Morgan, Owen, Starke, Vermillion, Warren and Wells (Deam).

Economic uses. Wood light, soft, brittle, coarse-grained, slightly aromatic, sap wood light yellow, heart wood orange brown, and durable in the ground. Used principally for fence posts. The bark of the roots and pith of the small branches are used in medicine. A tea made from the bark of the roots was used by the pioneers to

*On the land of Joseph Hole, Esq., (Jennings County), bordering the South Fork, are two sassafras trees, the first measuring four feet in diameter four feet from the ground, the other somewhat less. These trees stood near each other. The first tree was cut for saw stocks and shingles; the top of the last cut, forty feet from the stump, measured three feet in diameter. (Rept. Ind. Geol. Surv., 1875, page 177).

“thin the blood”. The bark yields a strong aromatic oil which is used in medicine and in the manufacture of perfumery.

Horticultural value. Adapted to almost all kinds of soil, and grows rapidly. It develops a large tap root which makes it difficult to transplant. It may be propagated by seed or planting small seedlings. It is a desirable tree for ornamental planting on account of its rich green foliage and varied shaped leaves, which are velvety while expanding and in autumn turn from green to orange-yellow or bright red. The clusters of blue-black fruit in autumn intensify the decorative effect.

ALTINGIACEÆ. SWEET GUM FAMILY.

LIQUIDÁMBAR. SWEET GUM.

(From the Latin, *liquidum*, fluid, *ambar*, amber, in allusion to the fragrant terebinthine exudation.)

Liquidambar Styraciflua Linnæus. SWEET GUM. GUM. Plate 74. Bark usually deeply furrowed; young branches largely smooth though some occur with more or less corky wings; leaves alternate, nearly round in outline, about 13 cm. (5 inches) wide, cleft into 5-7 wedge-shaped lobes, truncate or heart-shaped at the base, margin serrate, hairy on upper surface when expanding, soon glabrate or nearly so, aromatic when bruised; flowers appearing soon after the leaves, flowering season March, April or May; fruit a globular, horny aggregate of carpels, 3-4 cm. ($1\frac{1}{4}$ - $1\frac{1}{2}$ inches) in diameter, frequently remaining on the tree during the winter.

Distribution. Connecticut west to southeastern Missouri and eastern Texas, south to the Gulf States, and again appearing in Mexico and on the highlands of Guatemala. In Indiana it is confined to the southern half of the State. It is somewhat frequent along the inundated banks of streams, and in the southwestern counties it is frequent in wet woods. On some of the “flats” of the southern part of the State it is the principal species. Its occurrence in our area is the northern limit of its distribution and it does not grow so large in the northern counties as it does in the southwestern part of the State where it attains its greatest size. In the forest it is a straight tall tree with a few short side branches.

The published records of the distribution are as follows: Clark (Baird and Taylor) and (Smith); Decatur (Ballard); Franklin (Hay-

PLATE 74.

LIQUIDAMBAR STYRACIFLUA Linnaeus. SWEET GUM. (x $\frac{1}{2}$.)

mond) and (Meynke); Gibson (Schneck); Jefferson (J. M. Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Coulter)*; Miami (Gorby)**; Monroe (Blatchley); vicinity of New Albany (Clapp); Parke (Hobbs); Posey (Schneck); Shelby (Ballard); Vigo (Blatchley).

Additional records are: Putnam (Grimes); Clark, Dearborn, Decatur, Floyd, Gibson, Jackson, Posey, Ripley and Scott (Deam).

Economic uses. Wood heavy, hard, not strong, close-grained, inclined to shrink and warp in seasoning, takes a good polish, sap wood white, heart wood a rich brown which can be finished to imitate walnut or mahogany. In the export trade it is frequently referred to as American mahogany or satin walnut.

Horticultural value. It no doubt would prove to be perfectly hardy in at least the southern two-thirds of the State where it would be a desirable tree for shade and ornamental purposes. When grown in the open it develops a large oval crown, much resembling the maple in form and appearance. It is adapted to a wet or moist soil, somewhat difficult to transplant, grows rapidly; its foliage in summer is a glossy rich green, in autumn turning to brown, orange and crimson tints. It is practically free from disease and injurious insects.

PLATANACEÆ. THE PLANE TREE FAMILY.

PLÁTANUS. THE PLANE TREE.

Platanus occidentàlis Linnæus. SYCAMORE. Plate 75. Bark gray below, grayish-green above, splotched with white, on age separating from the tree in thin, brittle plates; buds when chewed at first bitter, followed by a pungent peppery taste; twigs pubescent when young, soon glabrous except a ring below the leaf scar, passing from a greenish-yellow to gray in color, at each node the growth changes direction from 10-25° which gives the twig a zig-zag appearance; leaves alternate, broadly ovate in outline, 10-35 cm. (4-9 inches) wide, 3-5 lobed, the broad lobes frequently toothed, light green, hairy when expanding, soon glabrous except on the veins beneath, base of petiole sheathing the axillary buds; flowers appearing in May with the leaves in heads on woolly peduncles;

*From cultivated tree.

**Probably erroneous or from a cultivated tree.

PLATE 75.



PLATANUS OCCIDENTALIS Linnaeus. SYCAMORE. (x 1.)

fruit in globular heads, 2-4 cm. ($1\frac{1}{2}$ -1 $\frac{1}{2}$ inches) in diameter, composed of numerous seeds.

Distribution. Southern Ontario and Maine, south to the Gulf States and west to Nebraska and Texas. Found in all parts of Indiana. It is more or less frequent to common along all the streams of the State. It is also found on the border of lakes, ponds and in swamps and wet woods. In the southern part of the State it is frequently found on the open hillsides. It has the distinction of being the largest deciduous tree of North America. The larger trees are frequently hollow at the base and badly "wind-shaken," which much reduces their value for lumber. The "wind-shake" appears to be the more pronounced in the northern part of the State.

The published records of the distribution are as follows: Cass (Benedict and Elrod) and (Coulter); Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Clark) and (Youse); Marion (Wilson); Miami (Gorby); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod); Wayne (Petty and Markle).

Additional records are: Montgomery (Thompson); Putnam (Grimes) and (MacDougal); Tippecanoe (Coulter); Bartholomew, Blackford, Crawford, Decatur, Jefferson, Montgomery, Parke, Owen, Wells (Deam).

Economic uses. Wood heavy, hard, weak, close-grained, difficult to split and work, takes a high polish, not durable in the soil, light brown. The principal uses are interior finish, frame material, heading, crating, office furniture and egg cases.

Horticultural value. It is well adapted for shade and ornamental purposes. Transplants well, adapted to a moist or dry soil, grows rapidly, straight, tall and narrow and stands pruning well. Its unique characteristics give it a constant charm. In the eastern states the foliage has been attacked by a fungous disease and this and the litter made by the falling bark and fruit are given as objections to this tree.

No doubt this species could be used to good advantage in reforesting the borders of streams and low ground.

MALACEÆ. THE APPLE FAMILY.

The trees of this family that occur in our area have simple, alternate leaves; perfect, regular flowers, 5-merous calyx and corolla; fruit a more or less fleshy pome.

- Flowers in racemes, cavities of mature fruit twice as many as the styles, seeds less than 4 mm. ($\frac{1}{8}$ inch) long..... 2 *Amelanchier*.
 Flowers in cymes or corymbs, cavities of mature fruit as many as the styles, seeds more than 4 mm. ($\frac{1}{8}$ inch) long.
 Fruit green, mature carpels papery..... 1 *Malus*.
 Fruit red, orange, blue, black or yellow, mature carpels bony..... 3 *Crataegus*.

1. MALUS.* THE APPLES.

There are two marked forms of *Malus coronaria*. One of these has recently been segregated by Mr. Alfred Rehder as *Malus glaucescens*. The Indiana tree is intermediate between these two types as to most of the material seen; and at present it seems best to consider it one species.

Malus augustifolia has been reported from Indiana; but it is a southern species which I have seen no farther north than Cairo, Illinois.

The narrow-leaved form of *Malus coronaria* and also *Malus ioensis* resemble *augustifolia* in leaf-outline and might easily be mistaken for it.

- Leaves and petioles glabrous or only slightly pubescent; calyx lobes tomentose inside only; fruit depressed-globose, greenish-yellow..... 1 *M. coronaria*.
 Leaves (at least the lower surfaces) and petioles densely tomentose; calyx lobes densely tomentose on both sides; fruit subglobose, green..... 2 *M. ioensis*.

1. *Malus coronaria* (Linnaeus) Miller. CRAB APPLE. (*M. glaucescens* Rehder). Plates 76 and 77. Bark reddish, fissured and scaly; leaves on glandless petioles, petioles usually 2-4 cm. ($3\frac{3}{4}$ -1 $\frac{1}{2}$ inches) long, leaves narrow ovate to almost triangular, those on the lateral branchlets of the ovate type, those of the terminal branchlets and vigorous shoots of the triangular type, 3-8 cm. (1 $\frac{1}{2}$ -3 inches) long, acute at the apex, mostly rounded or somewhat cordate at the

*Contributed by W. W. Eggleston, Bureau of Plant Industry, Washington, D. C.

PLATE 76.



MALUS CORONARIA (Linnaeus) Miller. WILD CRAB APPLE. ($\times \frac{1}{2}$.)
(Fruit, $\times 1$.) (Wide-leaf form.)

PLATE 77.



MALUS CORONARIA (Linnaeus) Miller. WILD CRAB APPLE. ($\times \frac{1}{2}$.)
(Narrow-leaf form.)

base, sometimes tapering, those of the triangular type usually truncate, margin of the ovate type of leaves more or less sharply serrate, the basal third of the leaf with shallow teeth or entire, margins of the triangular type more deeply serrate to almost lobed, hairy above and below when they expand, becoming smooth both above and below, sometimes a few hairs are found on the veins beneath at maturity, bright green above, paler beneath; flowers appear in May when the leaves are about half grown, usually 5 or 6 in a cluster, white or rose-color, very fragrant, 3-4 cm. ($1\frac{1}{2}$ -2 inches) broad when fully expanded; calyx lobes lanceolate-acuminate, tomentose on the inside, glabrous outside; fruit depressed-globose, without angles, yellow-green, 2-4.5 cm. ($\frac{3}{4}$ -2 inches) thick, 2-2.5 cm. ($\frac{3}{4}$ -1 inch) long, very fragrant and covered with a waxy bloom.

Distribution. Central New York, lower peninsula Michigan, western New Jersey to northern Alabama and Missouri. Found in all parts of Indiana. No doubt in the original forest it was rare, but the removal of the large trees has been favorable to its growth until today it is somewhat frequent in moist open woods, along streams and neglected fences. It is most frequent among the hills in southern Indiana, and in all its distribution it is usually found in clumps.

In our area it is a small tree about 1-2 dm. (4-8 inches) in diameter and 4-6 m. (12-18 feet) high, with a spreading crown. However, individuals are found that are strict in habit and attain a height of 10 m. (30 feet).

The published records of the distribution are as follows: Clark (Smith); Delaware, Jay, Randolph and Wayne (Phinney); Fayette (Hessler); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Barnes); Knox (Spillman); Kosciusko (Clark) and (Coulter); Marion (Wilson); Monroe (Blatchley); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Tippecanoe (Coulter); Vermillion (Wright); Vigo (Blatchley).

Additional records are: Floyd (Very); Putnam (Grimes); Tippecanoe (Dorner); Brown, Daviess, Decatur, Delaware, Grant, Kosciusko, Laporte, Morgan, Owen, Starke, Steuben, Warren and Wells (Deam).

Economic uses. The supply is so limited and the trees so small as to be of no economic importance. The pioneers were accustomed to make jelly out of the fruit.

Horticultural uses. Frequently planted for ornamental purposes on account of the profusion and fragrance of its flowers and yellow translucent fruit. Adapted to almost all kinds of soil.

PLATE 78.



MALUS IOENSIS (Wood) Britton. WESTERN CRAB APPLE. (x $\frac{1}{2}$.)

PLATE 79.



AMELANCHIER CANADENSIS (Linnaeus) Medicus. JUNE BERRY. ($\times \frac{1}{2}$.)

2. *Malus ioensis* (Wood) Britton. WESTERN CRAB APPLE. IOWA CRAB APPLE. Plate 78. Leaves oblong to ovate-oblong, 4-10 cm. ($1\frac{1}{2}$ -4 inches) long, 2-8 cm. ($\frac{3}{4}$ - $3\frac{1}{4}$ inches) wide, obtuse or acute at the apex, rounded or broadly cuneate at the base, dentate-crenate or doubly so, slightly pubescent above, becoming glabrous, dark green, slightly rugose above, densely white-tomentose below, remaining so at least along the veins; petioles 1.5-4 cm. ($\frac{1}{2}$ - $1\frac{1}{2}$ inches) long, densely white-tomentose; corymbs 2-5 flowered, pedicels pubescent; calyx densely white-tomentose, calyx lobes lanceolate-acuminate, densely tomentose on both sides; flowers similar to those of *Malus coronaria*; fruit subglobose, without angles, green, 2-3.5 cm. ($\frac{3}{4}$ - $1\frac{1}{2}$ inches) thick, 2-3 cm. ($\frac{3}{4}$ - $1\frac{1}{4}$ inches) long.

Distribution. Indiana, central Kentucky, Louisiana, Wisconsin, southern Minnesota, eastern Kansas and Texas. A tree, in habit, similar to *Malus coronaria*.

Specimens have been seen from: Putnam (Grimes); Tippecanoe (Dorner). A fragment in the National Museum from New Albany, Floyd County, Ind., collected by C. F. Very, April 1896, No. 254781, may also belong to this species.

This species seems rather uncommon as far east as Illinois, still, no doubt, other stations will be found in Indiana, now that it is known to occur in the State.

2. AMELANCHIER THE SERVICE BERRIES.

Amelanchier canadensis (Linnæus) Medicus. JUNE BERRY. SERVICE BERRY. Plate 79. Bark light reddish-brown; leaves very broadly ovate to oblong, 4-8 cm. ($1\frac{1}{2}$ -3 inches) long, acute, usually cordate at the base, sometimes rounded, finely serrate with incurved teeth. very hairy and folded together when very young, becoming glabrous above and below at maturity, frequently the under side persistently hairy, thick and firm, dark green above, paler beneath; petioles $\frac{1}{4}$ - $\frac{2}{5}$ the length of the blade; flowers appear in April or May when the leaves are expanding at the ends of the branches in loose or spreading racemes; fruit ripens in June or July, globose, red or purplish, about 7 mm. ($\frac{1}{4}$ inch) in diameter, sweet and edible.

This tree varies greatly in its size, in the kind of soil and location where it is found, in the shape and pubescence of the leaves, in the size and shape of the petals and in the size and color of the fruit. These variations have led authors to describe several varieties. The accompanying plate is the typical leaf form of the State. The oblong type is seldom seen in the northern part of the State,

but is common in the southern part. The tree is usually 0.5-1 dm. (2-4 inches) in diameter and 5-8 m. (15-25 feet) high.

Distribution. Newfoundland west along the shores of the Great Lakes, south to Florida and west to Minnesota and Kansas. It is frequent in northern Indiana on the wooded dunes bordering Lake Michigan and on the high banks of the lakes and rivers of the northern counties. In the remainder of the State it is usually rare and confined to the slopes of water courses.

The published records of the distribution are as follows: Cass (Benedict and Elrod) and (Hessler); Clark (Smith); Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Meyneke); Hamilton (Wilson); Jay (M'Caslin); Jefferson (J. M. Coulter); Kosciusko (Clark); Marion (Douglas); Marshall (Hessler); Monroe (Blatchley); Noble (Van Gorder); Putnam (MacDougal); Steuben (Bradner); Tippecanoe (Cunningham); Vigo (Blatchley); Wabash (Benedict and Elrod).

Additional records are: Putnam (Grimes); Tippecanoe (Coulter); Brown, Clark, DeKalb, Fulton, Jackson, Laporte, Porter, Steuben and Wells (Deam).

Economic uses. Wood very hard, close-grained, strong, reddish-brown. The tree is too rare and small to be of any economic importance. The fruit is greedily devoured by birds and rarely is enough ripe fruit found to justify the gathering.

3. CRATÆGUS.* THORN APPLES. RED HAWS.

Large shrubs or small trees, best at home in a limestone region. This genus has been studied a great deal in this country in the past fifteen years. Much work is still necessary in Indiana since there are a number of other species that belong in this range.

The "knob country" and southwestern Indiana are likely to produce the best results.

A. Leaves not deltoid-cordate; pubescent or glabrous.

I. Leaves broadest at the middle or the apex, cuneate.

a. Leaves broadest towards the apex.

Leaves not impressed-veined above, shining..... I. Crus-Galli.

1 C. Crus-Galli.

Leaves impressed-veined above, dull..... II. Punctatæ.

Fruit ellipsoidal; nutlets usually 3 or 4.

Leaves bright yellow-green, slightly impressed above; fruit

ellipsoidal..... 2 C. cuneiformis.

*Contributed by W. W. Eggleston, Bureau of Plant Industry, Washington, D. C.

- Leaves dull gray-green
above, strongly im-
pressed-veined; fruit
short ellipsoidal..... 3 *C. punctata*.
- Fruit globose..... 4 *C. Margaretta*.
- b. Leaves broadest at the middle.
- Leaves impressed-veined.....III. *Macracanthæ*.
- Leaves dark green, glabrous and shining above,
coriaceous.
- Fruit sometimes 16 mm.
($\frac{2}{3}$ inch) thick;
stamens usually 10;
leaves and anthers
large..... 5 *C. succulenta*.
- Fruit sometimes 12 mm.
($\frac{1}{2}$ inch) thick;
stamens 15-20; leaves
and anthers small... 6 *C. neo-fluvialis*.
- Leaves gray-green, pub-
escent and dull above,
subcoriaceous..... 7 *C. Calpodendron*.
- Leaves not impressed-veined.....IV. *Virides*.
- Fruit bright red, glaucous,
4-6 mm. ($\frac{1}{6}$ - $\frac{1}{4}$ inch)
thick; leaves serrate.. 8 *C. viridis*.
- Fruit dull dark red, 6-8
mm. ($\frac{1}{4}$ - $\frac{1}{3}$ inch)
thick; leaves coarsely
serrate..... 9 *C. nitida*.
- II. Leaves broadest at the base.
- a. Leaves $1\frac{1}{2}$ -6 cm. ($\frac{1}{2}$ -2 $\frac{1}{2}$ inches) long and wide,
membranaceous; calyx lobes usually entire.
- Leaves yellow-green, often slightly pubescent;
fruit soft at maturity..... V. *Tenuifoliæ*.
- 10 *C. macrosperma*.
- Leaves blue-green, glabrous; fruit hard at maturity.VI. *Pruinosæ*.
- Leaves elliptical-ovate.....11 *C. Jesupi*.
- Leaves usually ovate.
- Leaves usually cordate...12 *C. rugosa*.
- Leaves usually cuneate.
- Leaves deltoid.....13 *C. Gattingeri*.
- Leaves ovate.....14 *C. pruinosa*.
- b. Leaves 3-10 cm. (1-4 inches) long and wide; calyx
lobes usually serrate.....VII. *Coccineæ*.
- Mature leaves usually glabrous above; young foli-
age bronze-green; anthers pink.
- Corymbs and fruit glabrous.15 *C. coccinoides*.
- Corymbs and fruit pubes-
cent or tomentose.....16 *C. coccinæ*.
- Mature leaves tomentose a-
bove; young foliage yel-
low-green; anthers yellow.17 *C. mollis*.
- B. Leaves conspicuously deltoid-
cordate, glabrous; fruit 4-6 mm.
($\frac{1}{6}$ - $\frac{1}{4}$ inch) thick.....18 *C. Phænopyrum*.

1. *Crataegus Crus-Galli* Linnæus. COCK-SPUR THORN. NEWCASTLE THORN. Plate 80. Bark dark gray, scaly; spines many, strong, straight, 3-18 cm. (1-7 inches) long; leaves obovate to elliptical, 2-10 cm. ($\frac{3}{4}$ -4 inches) long, 1-4 cm. ($\frac{1}{4}$ -1 $\frac{1}{2}$ inches) wide, sharply serrate, except towards the base, acute or rounded at the apex, cuneate, dark green and shining above, coriaceous, glabrous or occasionally slightly pubescent; petioles slightly winged above, glandless, 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch) long; corymbs glabrous or occasionally pubescent, many flowered; flowers appear in May or June, about 1.5 cm. ($\frac{2}{3}$ inch) wide, stamens 10-20, anthers usually pink, calyx lobes lanceolate-acuminate, entire, styles and nutlets usually 2; fruit ripens in October, ellipsoidal-ovoid to subglobose about 1 cm. ($\frac{3}{8}$ inch) thick, greenish to red; flesh hard and dry, rather thin.

Distribution. Northern New York to Ontario, eastern Kansas and south through western Connecticut to Georgia and Texas. Introduced near Montreal, about Lake Champlain and on Nantucket Island. Well distributed in Indiana but apparently more common in the south part of the State.

A small tree, sometimes 10 m. (35 feet) high, with spreading branches and a broad crown; but often a large shrub. This is a variable species and has received many names.

I have seen specimens from the following counties: Crawford (Deam); Decatur (Mrs. C. C. Deam); Gibson (Schneck); Jackson (Deam); Knox (Schneck); Lawrence and Posey (Deam); Owen (Grimes); Vigo (Blatchley); Wells (Deam).

Economic uses. The timber is hard and tough, similar to the ordinary apple, and useful for the same purposes as applewood.

Horticultural uses. Valuable hedge plant, and its shiny, dark green leaves and abundance of white flowers make it also a highly ornamental plant for parks and lawns.

2. *Crataegus cuneiformis* (Marshall) Eggleston. MARSHALL'S THORN. (*C. pausiaca* Ashe). Plate 81. Bark dark brown, scaly; spines numerous, 2-18 cm. ($\frac{3}{4}$ -7 inches) long; leaves oblanceolate-obovate, acute at the apex, cuneate at the base, serrate or doubly serrate, 3-6 cm. (1 $\frac{1}{4}$ -2 $\frac{1}{2}$ inches) long, 1.5-4 cm. ($\frac{1}{2}$ -1 $\frac{1}{2}$ inches) wide, dark vivid yellow-green, glabrous and impressed-veined above when mature, subcoriaceous; petioles 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch) long, slightly winged above; corymbs usually slightly pubescent, many flowered; flowers appear in May, 1.2-1.5 cm. ($\frac{1}{2}$ - $\frac{2}{3}$ inch) wide; stamens 10-15, anthers dark pink, styles and nutlets 2-4, calyx lobes lanceolate-acuminate, entire; fruit ripens in October, ellip-

PLATE 80.



CRATEGUS CRUS-GALLI Linnaeus. COCK-SPUR OR NEW CASTLE THORN.
(x 1.)

PLATE 81.



CRATÆGUS CUNEIFORMIS (Marshall) Eggleston. MARSHALL'S THORN.
(x 1.)

soidal-pyriform, scarlet or dark red, about 8 mm. ($\frac{3}{8}$ inch) thick, flesh hard, thick.

Distribution. Western New York and Pennsylvania to southwestern Virginia, west to central Illinois.

A small tree sometimes 8 m. (25 feet) high, with spreading branches forming a flat or round crown. This species is intermediate between *Crus-Galli* and *punctata*, and has been found as yet only in a region where both these species are known.

I have seen specimens from the following counties: Clark (Deam); Gibson (Schneck); Hamilton (Mrs. C. C. Deam); Knox (Schneck); Vigo (Blatchley).

3. *Crataegus punctata* Jacquin. LARGE-FRUITED THORN. DOTTED HAW. Plate 82. Bark grayish-brown, scaly; thorns light gray, 2-5 cm. ($\frac{3}{4}$ -2 inches) long, straight; leaves obovate to oblong, 2-8 cm. ($\frac{3}{4}$ -3 inches) long, 1-5 cm. ($\frac{1}{4}$ -2 inches) broad, dull gray-green and markedly impressed-veined above, pubescent, becoming nearly glabrous above when mature, acute or obtuse at the apex, sharply cuneate at the base; serrate, doubly serrate or lobed at the apex, subcoriaceous; petioles 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch) long, slightly winged above; corymbs tomentose or canescent, many flowered; flowers appear in June, about 2 cm. ($\frac{5}{6}$ inch) wide, calyx lobes lanceolate-acuminate, entire, stamens about 20, anthers white or pink, styles and nutlets usually 3 or 4; fruit ripens in October or November, green, yellow or red, short-ellipsoidal, 1.2-2.5 cm. ($\frac{1}{2}$ -1 inch) thick, flesh hard, thick, calyx lobes spreading.

Distribution. Quebec to Pennsylvania, southeastern Minnesota, Iowa, Kentucky and south to the high Alleghenies. Well distributed over Indiana.

A small tree, sometimes 10 m. (35 feet) high, with distinctly horizontal branches and a broad, flat crown.

Specimens have been seen from the following counties: Bartholomew, Fulton and Gibson (Deam); Hamilton (Mrs. C. C. Deam); Howard, Jennings and Marion (Deam); Putnam (Grimes); Vigo (Blatchley); Vermillion and Wells (Deam).

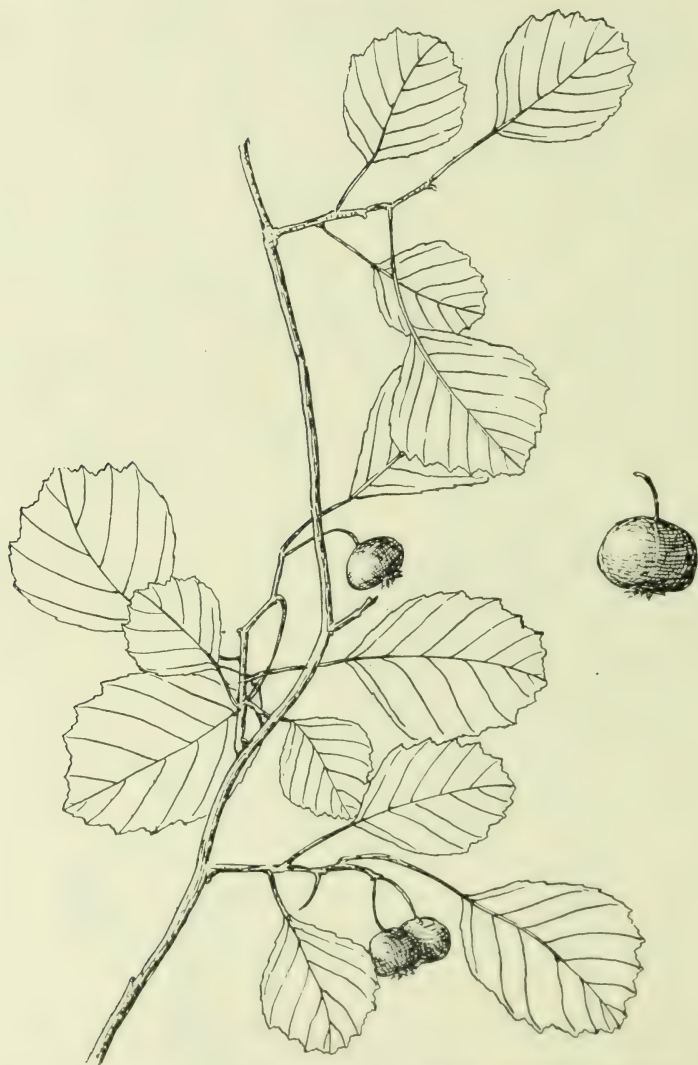
4. *Crataegus Margaretta* Ashe. JUDGE BROWN'S THORN. MRS. ASHE'S THORN. Plate 83. Bark dark grayish-brown; spines curved, 2-4 cm. ($\frac{3}{4}$ -1 $\frac{1}{2}$ inches) long; leaves oblong-obovate or ovate, sometimes broadly so, 2-6 cm. ($\frac{3}{4}$ -2 $\frac{1}{2}$ inches) long, 2-4 cm. ($\frac{3}{4}$ -1 $\frac{1}{2}$ inches) wide, obtuse or acute at the apex, cuneate or rounded at the base, serrate or doubly serrate with 2 or 3 pairs of acute or obtuse lobes towards the apex, glabrous when mature, dark green

PLATE 82.



CRATÆGUS PUNCTATA Jacquin. LARGE-FRUITED THORN. DOTTED HAW
(x 1.)

PLATE 83.



CRATÆGUS MARGARETTA Ashe. JUDGE BROWN'S THORN. MRS
ASHE'S THORN. (x $\frac{1}{2}$.) (Fruit x 1.)

above, membranaceous, petioles 1-3 cm. ($\frac{3}{8}$ - $1\frac{1}{4}$ inches) long, slightly winged; corymbs slightly pubescent, becoming glabrous, 5-12 flowered; flowers appear in May, 1.5-2 cm. ($\frac{1}{2}$ - $\frac{5}{6}$ inch) wide, stamens about 20, anthers yellow, styles and nutlets usually 2, calyx lobes lanceolate-acuminate, slightly pubescent inside; fruit ripens in October, dull rusty green, yellow or red, compressed-globose to short-ellipsoidal, angular, 8-15 mm. ($\frac{1}{2}$ - $\frac{2}{3}$ inch) thick, flesh-yellow, mealy, hard, thick, calyx lobes reflexed, deciduous.

Distribution. Southern Ontario to central Iowa, western Virginia, Tennessee and Missouri. Known in Indiana only from the northern part of the State.

A small tree sometimes 8 m. (25 feet) high, with spreading branches.

Specimens have been seen from the following counties: Cass (Mrs. Ida Jackson); Delaware, Fulton, Steuben and Wells (Deam).

5. *Crataegus succulenta* Schrader. LONG-SPINED THORN (*C. macracantha* Loddiges). Plate 84. Bark gray; spines numerous, strong, 3-10 cm. ($1\frac{1}{2}$ -4 inches) long, chestnut-brown; leaves rhombic-ovate to obovate, 3-8 cm. ($1\frac{1}{4}$ - $3\frac{1}{4}$ inches) long, 2.5-6 cm. (1 - $2\frac{1}{2}$ inches) wide, acute at the apex, broadly cuneate at the base, serrate or doubly serrate with fine teeth, often lobed towards the apex, coriaceous, dark shining green above, pubescent along the veins beneath; petioles 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch) long, slightly winged above; corymbs slightly villous, many-flowered; flowers appear in May, about 2 cm. ($\frac{5}{8}$ inch) broad, stamens 10-20, usually 10, anthers pink or occasionally yellow or white, large, styles and nutlets usually 2 or 3, calyx lobes lanceolate-acuminate, glandular-laciniate, villous; fruit ripens in September, subglobose, 5-15 mm. ($\frac{1}{4}$ - $\frac{2}{3}$ inch) thick, dark red, shining villous, calyx-lobes reflexed, flesh thin, glutinous; nutlets with deep pits on the inner faces.

Distribution. Nova Scotia to Minnesota, Nebraska and south in the higher Alleghenies to North Carolina and in the Rocky Mountains to southern Colorado. As yet reported only from northern to central Indiana.

A small tree sometimes 6 m. (20 feet) high, with ascending branches and a broad, irregular crown; more often, however, a large shrub.

Specimens have been seen from the following counties: Cass (Mrs. Ida Jackson); Fulton (Deam); Noble (Van Gorder); Putnam (Grimes); Wells (Deam).

Horticultural uses. Highly ornamental for parks and hedges from the abundant flowers, dark green shining leaves and its dark red shining fruit.

PLATE 84.



CRATAEGUS SUCCULENTA Schrader. LONG-SPINED THORN. ($\times \frac{1}{2}$)
(Fruit and nutlet $\times 1$.)

PLATE 85.



CRATÆGUS NEO-FLUVIALIS Ashe. NEW RIVER THORN. (x $\frac{1}{2}$.)
(Fruit, x 1.)

6. *Cratægus neo-fluvialis* Ashe. NEW RIVER THORN. Plate 85. Bark grayish; spines numerous, 2.5-8 cm. (1-3 inches) long; leaves elliptical-ovate to obovate, 2.5-8 cm. (1-3 inches) long, 2-6 cm. ($\frac{3}{4}$ 2 $\frac{1}{2}$ inches) wide, acute or obtuse at the apex, cuneate at the base, sharply and doubly serrate, with obtuse or acute lobes towards the apex, coriaceous, dark green and shining above, pubescent along the veins beneath; petioles 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch) long, slightly winged above; corymbs and calyx-tubes glabrous or slightly villous, many-flowered; flowers appear in May, 1.2-1.6 cm. ($\frac{1}{2}$ - $\frac{2}{3}$ inch) broad, stamens 15-20, anthers usually pink, small, styles and nutlets usually 2 or 3, calyx lobes more villous on the inside, lanceolate-acuminate, glandular-laciniate; fruit ripens in September, globose or short ellipsoidal, dark red, 4-12 mm. ($\frac{1}{4}$ - $\frac{1}{2}$ inch) thick, glabrous or slightly hairy; calyx lobes reflexed, flesh thin, glutinous; nutlets with deep pits on the inner faces.

Distribution. Western Vermont to eastern Wisconsin, Iowa and south in the Alleghenies to North Carolina.

A small tree sometimes 9 m. (30 feet) high, with ascending and spreading branches.

Specimens have been seen from Wells County (Deam).

7. *Cratægus Calpodendron* (Ehrhart) Medicus. PEAR-THORN. PEAR OR RED HAW. Plate 86. Bark pale gray to dark brown, furrowed; spines occasional, slender 3-5 cm. ($1\frac{1}{4}$ -2 inches) long; leaves rhombic-ovate, 4-11 cm. ($1\frac{1}{2}$ -4 $\frac{1}{2}$ inches) long, 3-8 cm. ($1\frac{1}{4}$ -3 inches) wide, acute or acuminate at the apex, finely and doubly serrate, those on the vegetative shoots obtuse and more entire than the others, pubescent on both sides, becoming scabrate above, subcoriaceous, dull green above; petioles about 2 cm. ($\frac{3}{4}$ inch) long, wing margined, glandular hairy; corymbs white-tomentose, many-flowered; flowers appear in June, about 1.5 cm. ($\frac{2}{3}$ inch) broad, stamens about 20, anthers small, pink, styles and nutlets usually 2 or 3, calyx lobes lanceolate-acuminate, glandular-laciniate; fruit ripens in September, pyriform to ellipsoidal, orange-red or red, 8-10 mm. ($\frac{1}{3}$ inch) thick; calyx lobes reflexed; flesh glutinous, nutlets with deep pits in their inner faces.

Distribution. Central New York, northeastern New Jersey to Minnesota and Missouri and south in the mountains to northern Georgia.

A large shrub or occasionally a tree 6 m. (20 feet) high, with ascending branches forming a broad crown.

Specimens have been examined from the following counties: Marion and Posey (Deam); Putnam (Grimes); Wells (Deam).

PLATE 86.



CRATÆGUS CALPODENDRON (Ehrhart) Medicus. PEAR-THORN.
PEAR OR RED HAW. ($\times \frac{1}{2}$) (Fruit, $\times 1$.)

8. *Cratægus viridis* Linnæus. SOUTHERN THORN. Plate 87. Bark gray to light orange; spines uncommon, 2-5 cm. ($\frac{3}{4}$ - $3\frac{1}{4}$ inches) long; leaves oblong-ovate, 2-8 cm. ($\frac{3}{4}$ - $3\frac{1}{4}$ inches) long, 2-5 cm. ($\frac{1}{2}$ -2 inches) wide, acute, acuminate or even obtuse at the apex, serrate or doubly serrate, often with acute or obtuse lobes towards the apex, dark green, shining and slightly impressed-veined above, sometimes pubescent along the veins beneath; petioles 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch) long, slightly winged above; corymbs glabrous, many flowered; flowers appear in May, 1-1.5 cm. ($\frac{1}{2}$ - $\frac{2}{3}$ inch) broad, stamens about 20, anthers usually yellow, sometimes pink, styles and nutlets 4 or 5, calyx lobes lanceolate-acuminate, entire, slightly pubescent inside; fruit ripens in October, globose or compressed-globose, bright red or orange, glaucous, 4-6 mm. ($\frac{1}{4}$ inch) thick, flesh thin, hard, edible.

Distribution. Moist, alluvial soil along streams and lakes, southeastern Virginia to northern Florida and southwestern Indiana to eastern Kansas and Texas.

A tree from 6-11 m. (20-35 feet) high, with ascending branches and a broad crown.

Specimens examined: Gibson and Knox (Schneck); Posey (Deam).

9. *Cratægus nitida* (Engelmann) Sargent. SHINING THORN. Plate 88. Bark dark and scaly; spines occasional, 3-5 cm. (1-2 inches) long; leaves oblong-ovate to oval, 3-8 cm. ($1\frac{1}{4}$ -3 inches) long, 2-6 cm. ($\frac{3}{4}$ - $2\frac{1}{4}$ inches) wide, acute at the apex, cuneate at the base, coarsely serrate or twice serrate with acute lobes towards the apex, dark green and shining above, glabrous; petioles 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch) long, slightly winged above, slightly villous when young; corymbs glabrous, many-flowered; flowers appear in May, 1.2-2 cm. ($\frac{1}{2}$ - $\frac{3}{4}$ inch) broad, stamens about 20, anthers light yellow, styles and nutlets 3-5, calyx lobes lanceolate-acuminate, entire; fruit ripens in October, globose to short-ellipsoidal, dark dull red, 6-9 mm. ($\frac{1}{4}$ - $\frac{1}{2}$ inch) thick; flesh yellow, mealy, hard.

Distribution. River bottoms southwestern Indiana to southern Illinois. A tree sometimes 9 m. (30 feet) high, with ascending and spreading branches and a broad crown.

Specimens have been seen from: Gibson (Schneck); Posey (Deam).

10. *Cratægus macrosperma* Ashe. VARIABLE THORN. Plate 89. Bark brown, scaly; spines numerous, stout, curved, 2-7 cm. ($\frac{3}{4}$ - $2\frac{3}{4}$ inches) long; leaves broadly elliptical-ovate to broadly ovate, 2-7 cm. ($\frac{3}{4}$ - $2\frac{3}{4}$ inches) long and wide, acute at the apex, rounded, truncate or rarely cordate at the base, serrate or doubly serrate,

PLATE 87.



CRATÆGUS VIRIDIS Linnæus. SOUTHERN THORN. (x $\frac{1}{2}$.)

PLATE 88.



CRATÆGUS NITIDA (Engelmann) Sargent. SHINING THORN. ($\times \frac{1}{2}$.)
(Fruit, $\times 1$.)

slightly villous, becoming glabrate, dark yellow-green above, membranaceous; petioles slender, 2-3 cm. ($1\frac{1}{2}$ -1 $\frac{1}{4}$ inches) long, slightly winged above; corymbs glabrous or slightly villous, many-flowered;

PLATE 89.



CRATÆGUS MACROSPERMA Ashe. VARIABLE THORN. ($\times \frac{1}{2}$.)
(Fruit, $\times 1$.)

flowers appear in May, 1.5-2 cm. ($1\frac{1}{2}$ - $\frac{3}{4}$ inch) broad, stamens 5-20, usually 5-10, styles and nutlets usually 3 or 4, calyx lobes lanceolate-acuminate, entire; fruit ripens in August or September, ellipsoidal or pyriform, scarlet to crimson, often glaucous, 1-1.8

cm. ($1/3$ - $3/4$ inch) thick, flesh succulent, edible, calyx lobes persistent, erect or spreading.

Distribution. Nova Scotia and Maine to southeastern Minnesota and south in the mountains to North Carolina and Tennessee.

Usually a large shrub but occasionally a small tree sometimes 8 m. (25 feet) high, with ascending branches.

Specimens have been seen from the following counties: Clark, Fulton, Madison, Porter, Shelby and Wells (Deam).

11. *Cratægus Jesupi* Sargent. JESUP'S THORN. TWIN MOUNTAIN THORN. Plate 90. Bark grayish-brown; spines stout, straight, 2-4 cm. ($3/4$ - $1\frac{1}{2}$ inches) long; leaves elliptical-ovate, 3.5-7 cm. ($1\frac{1}{2}$ -3 inches) long, 2-5.5 cm. (1-2 inches) wide, acute or acuminate at the apex, broadly cuneate to truncate-cordate, serrate or doubly serrate with 4 or 5 pairs of acute lobes, yellow-green above, paler beneath, glabrous; petioles slender, 2-3.5 cm. ($3/4$ - $1\frac{1}{2}$ inches) long, slightly winged above; corymbs glabrous, many-flowered; flowers appear in May, about 2 cm. ($5/6$ inch) broad, stamens about 10, anthers dark red, styles and nutlets usually 3 or 4, calyx lobes entire; fruit ripens in October, short-ellipsoidal to pyriform, dark red, slightly angled, lacking bloom when mature, about 1 cm. ($3/8$ inch) thick, calyx lobes mostly deciduous, flesh yellow, firm.

Distribution. Western Vermont to southwestern Wisconsin and south to Pennsylvania and Owen County, Indiana.

A shrubby tree, sometimes 6 m. (20 feet) high, with ascending branches and a round crown.

Specimens examined: Owen (Mrs. C. C. Deam).

12. *Cratægus rugosa* Ashe. FRETZ'S THORN. (*C. deltoidea* Ashe.) Plate 91. Spines numerous, 3-6 cm. ($1\frac{1}{4}$ - $2\frac{1}{2}$ inches) long, stout, curved; leaves broadly ovate, 3-7 cm. (1 - $2\frac{3}{4}$ inches) long and broad, acute or acuminate at the apex, cordate or truncate at the base, serrate or twice serrate with 4-6 pairs of broad acuminate lobes, glabrous, membranaceous; petioles 1-3 cm. ($3/8$ - $1\frac{1}{4}$ inches) long, glabrous; corymbs many-flowered, glabrous; flowers appear in May, about 2 cm. ($5/6$ inch) broad, stamens 10-20, anthers pink, styles and nutlets usually 4 or 5, calyx lobes deltoid-acuminate, entire or slightly serrate at the base; fruit ripens in October, depressed-globose, bright red, angular, glabrous, waxy, 1-1.5 cm. ($1/2$ - $2/3$ inch) thick, flesh yellow, somewhat succulent, calyx lobes persistent, spreading, the tube rather prominent.

Distribution. Southwestern New England to southern Indiana and the mountains of North Carolina.

PLATE 90.



CRATÆGUS JESUPI Sargent. JESUP'S THORN. TWIN MOUNTAIN THORN.
(x 1.)

A shrub or tree sometimes 6 m. (20 feet) high, with ascending branches and an irregular crown.

Specimens examined: Jennings and Owen (Deam).

PLATE 91.



CRATÆGUS RUGOSA Ashe. FRETZ'S THORN. (x 1.)

13. Crataegus Gattingeri Ashe. DR. CLAPP'S THORN. GATTINGER'S THORN. (*C. coccinea* var. *oligandra* Torrey and Gray). Plate 92. Spines numerous, 2.5-6 cm. (1-2 inches) long; leaves narrowly ovate to deltoid, 2.5-6 cm. (1-2½ inches) long, 2-5 cm. (¾-2 inches) wide, acuminate at the apex, broadly cuneate or

PLATE 92.



CRATÆGUS GATTINGERI Ashe. GATTINGER'S THORN. ($\times \frac{1}{2}$.)
(Fruit, $\times 1$.)

rounded at the base, serrate or doubly serrate, lobed towards the apex, membranaceous, glabrous, dark green above; petioles glabrous, 2-3 cm. ($\frac{3}{4}$ -1 $\frac{1}{4}$ inches) long; corymbs glabrous, many-flowered; flowers appear in May, about 2 cm. ($\frac{3}{4}$ inch) broad, stamens 10-20, anthers small, pink, styles and nutlets usually 3 or 4; fruit ripens in October, globose, angular, red, slightly waxy, 0.8-1.2 cm. ($\frac{1}{3}$ - $\frac{1}{2}$ inch) thick, flesh hard, calyx tube prominent, the lobes triangular, spreading.

Distribution. Southern Pennsylvania and southern Indiana to West Virginia and central Tennessee.

Shrub or small tree sometimes 4.5 m. (15 feet) high, with ascending, irregular branches.

Specimens seen from: Floyd (Dr. Clapp) (Before 1840); Knox (Schneck).

14. *Crataegus pruinosa* (Wendland) K. Koch. **WAXY-FRUITED THORN.** Plate 93. Bark dark brown; spines numerous, slender, 3-6 cm. ($1\frac{1}{4}$ -2 $\frac{1}{2}$ inches) long, leaves elliptical-ovate to broadly ovate, 2.5-6 cm. (1 -2 $\frac{1}{2}$ inches) long and wide, acute or acuminate at the apex, abruptly cuneate, rounded or occasionally cordate at the base, serrate or doubly serrate with 3 or 4 pairs of broad acute lobes towards the apex, blue-green, glabrous, membranaceous; petioles 2 or 3 cm. ($\frac{3}{4}$ -1 $\frac{1}{4}$ inches) long, glabrous; corymbs glabrous, many-flowered; flowers appear in May, about 2 cm. ($\frac{5}{6}$ inch) broad, stamens 10-20, anthers pink or sometimes yellow or white, styles and nutlets 4 or 5, calyx lobes lanceolate-acuminate, entire, slightly serrate at the base; fruit ripens in October, depressed-globose to short-ellipsoidal, strongly angled, waxy, apple-green, becoming scarlet or purple, 1.2-1.5 cm. ($\frac{1}{2}$ - $\frac{2}{3}$ inch) thick, flesh firm, yellow, sweet, calyx tube prominent, the lobes spreading, persistent.

Distribution. Rocky, open woods, western New England to Michigan and south to North Carolina and Missouri. Well distributed in Indiana.

A small shrubby tree, sometimes 6 m. (20 feet) high, with irregular branches and crown.

Specimens have been seen from the following counties: Decatur, Delaware, Gibson, Hamilton, Madison, Steuben, Warren and Wells (Deam); Putnam (Grimes).

15. *Crataegus coccinoides* Ashe. **EGGERT'S THORN.** (*C. Egger-tii* Britton). Plate 94. Bark grayish-brown, scaly; spines curved, 2-6 cm. ($\frac{3}{4}$ -2 $\frac{1}{2}$ inches) long; leaves broadly ovate, 4-9 cm. ($1\frac{1}{2}$ -3 $\frac{1}{2}$

PLATE 93.



CRATÆGUS PRUINOSA (Wendl.) K. Koch. WAXY-FRUITED THORN.
(x $\frac{1}{2}$.) (Fruit, x 1.)

PLATE 94.



CRATÆGUS COCCINOIDES Ashe. EGGERT'S THORN. ($\times \frac{1}{2}$.)
(Fruit, $\times 1$.)

inches) long, 3.5-8 cm. ($1\frac{3}{4}$ -3 inches) wide, acute at the apex, rounded or truncate at the base, doubly serrate with several pairs of broad, acute lobes, dark green above, paler and slightly tomentose along the veins beneath, membranaceous; petioles 2 or 3 cm. ($\frac{3}{4}$ - $1\frac{1}{4}$ inches) long, slightly pubescent; corymbs glabrous, 5-12 flowered; flowers appear in May, about 2 cm. ($\frac{5}{6}$ inch) broad, stamens about 20, anthers pink, styles and nutlets usually 4 or 5, calyx lobes ovate, acute, glandular-serrate; fruit ripens in September, subglobose, obtusely angled, 1.5-2 cm. ($\frac{3}{4}$ -1 inch) thick; calyx tube prominent, the lobes spreading, flesh reddish, subacid, edible.

Distribution. Montreal Island to Rhode Island and west to eastern Kansas and Missouri.

A small tree sometimes 6 m. (20 feet) high, with ascending and spreading branches and a broad, round-topped crown.

Specimens have been seen from: Floyd (Dr. Clapp) (before 1840); Gibson (Schneck); Marion (Deam); Vigo (Blatchley).

16. *Cratægus coccinea* Linnæus. SCARLET THORN. RED HAW. (*C. pedicillata* Sargent). Plate 95. Bark light gray; spines stout, curved, 2-6 cm. ($\frac{3}{4}$ -2 inches) long; leaves broadly ovate, 3-10 cm. ($1\frac{1}{4}$ -4 inches) long, 3-9 cm. ($1\frac{1}{4}$ - $3\frac{1}{2}$ inches) wide, acute or acuminate at the apex, broadly cuneate to truncate at the base, serrate, doubly serrate or lobed, slightly pubescent becoming scabrous above, nearly glabrous beneath, membranaceous; corymbs glabrous or sometimes slightly villous, many-flowered; flowers appear in May, 1.5-2 cm. ($\frac{2}{3}$ - $\frac{5}{6}$ inch) broad, stamens 10-20, anthers pink, styles and nutlets 3-5; fruit ripens in September, pyriform to short-ellipsoidal, scarlet or red, glabrous or slightly pubescent, 1.5-2 cm. ($\frac{3}{4}$ - $\frac{5}{6}$ inch) thick; calyx lobes lanceolate-acuminate, glandular-serrate, erect or spreading, rather persistent; flesh thick, dry and mealy.

Distribution. Connecticut to Ontario, Illinois, Delaware and Pennsylvania.

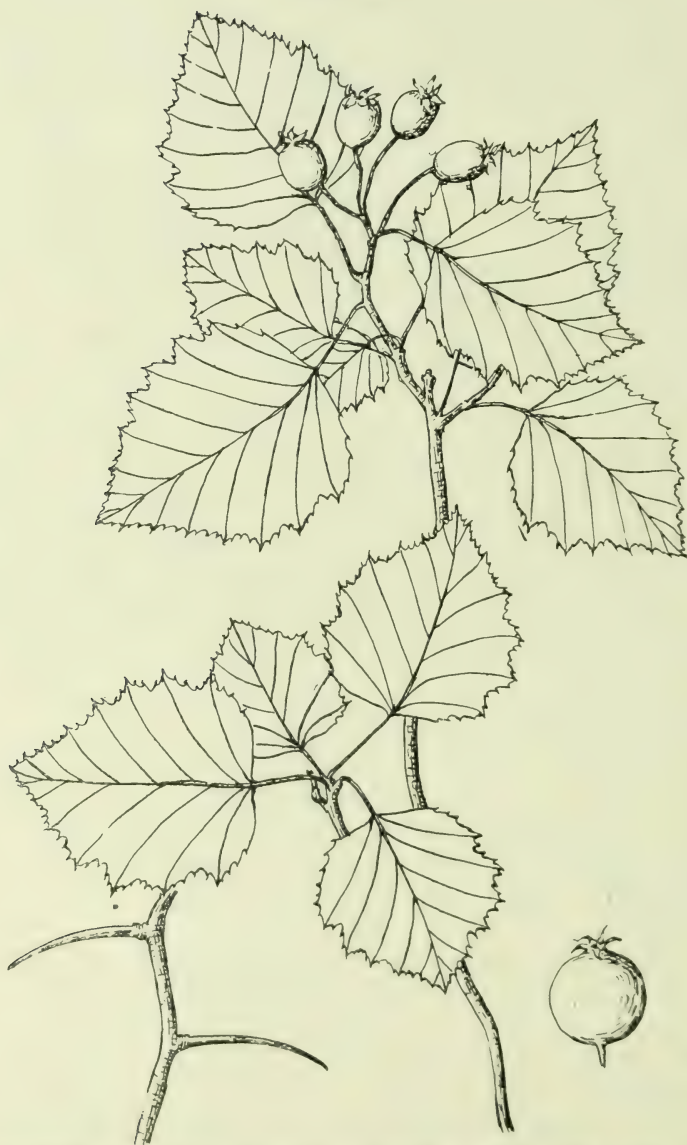
A small tree sometimes 8 m. (25 feet) high, with ascending and spreading branches and a broad, round-topped crown.

Specimens have been seen from the following counties: Floyd (Deam); Noble (Van Gorder); Steuben (Deam).

Horticultural uses. This fine tree has been in the gardner's hands several centuries, there are specimens in the Kew Gardens, England, more than two hundred years old.

17. *Cratægus mollis* (Torrey and Gray) Scheele. RED-FRUITED OR DOWNY THORN. RED HAW. Plate 96. Bark grayish-brown, fissured and scaly; spines curved, 3-5 cm. (1-2 inches) long; leaves

PLATE 95.



CRATÆGUS COCCINEA Linnaeus. SCARLET THORN. RED HAW. ($\times \frac{1}{2}$.)
(Fruit, $\times 1$.)

PLATE 96.



CRATÆGUS MOLLIS (Torrey and Gray) Scheele. RED-FRUITED OR
DOWNY THORN. RED HAW. ($\times \frac{1}{2}$.) (Fruit, $\times 1$.)

broadly ovate, acute at the apex, cordate to truncate at the base, serrate or twice serrate with narrow acute lobes, 4-13 cm. ($1\frac{1}{2}$ -5 inches) long, 4-10 cm. ($1\frac{1}{2}$ -4 inches) wide, slightly rugose, densely tomentose beneath, tomentose above, becoming scabrous, membranaceous; petioles 2-4 cm. ($\frac{3}{4}$ - $1\frac{1}{2}$ inches) long, tomentose; corymbs tomentose, many-flowered; flowers appear in May, about 2.5 cm. (1 inch) broad, stamens about 20, anthers light yellow; styles and nutlets 4 or 5; fruit ripens in September, short-ellipsoidal to subglobose, scarlet, 1.5-2.5 cm. ($\frac{1}{2}$ -1 inch) thick, calyx lobes glandular-serrate, swollen, erect or spreading, deciduous, flesh thick, yellow, edible.

Distribution. Southern Ontario to South Dakota, south to central Tennessee and Arkansas. This typical thorn of the central prairie states is best at home on limestone bluffs and is well distributed over Indiana.

A small tree often 13 m. (40 feet) high, with ascending and spreading branches, forming a broad, round-topped crown.

Specimens have been examined from the following counties: Cass (Mrs. Ida Jackson); Gibson and Knox (Schneck); Montgomery and Putnam (Grimes); Decatur, Delaware, Floyd, Henry, Knox, Madison, Marion, Posey, Vermillion and Wells (Deam).

18. *Crataegus Phænopyrum* (Linnæus fil.) Medicus. WASHINGTON THORN. SCARLET HAW. (*C. cordata* Aiton). Plate 97. Bark grayish-brown, scaly; spines numerous, slightly curved, 2-5 cm. ($\frac{3}{4}$ -2 inches) long; leaves ovate-triangular, 2-8 cm. ($\frac{3}{4}$ -3 inches) long and wide, simply or doubly serrate, often 3-5 lobed, acute at the apex, rounded to cordate at the base, bright green above, glabrous; petioles slender, 1.5-5 cm. ($\frac{1}{2}$ -2 inches) long, glabrous; corymbs glabrous, many-flowered; flowers appear in June, 8-12 mm. ($\frac{1}{3}$ - $\frac{1}{2}$ inch) broad, stamens about 20, anthers pink, styles and nutlets usually 5, calyx lobes deltoid, entire, deciduous; fruit ripens in October or November, depressed-globose, scarlet, 4-6 mm. ($\frac{1}{6}$ - $\frac{1}{4}$ inch) thick, nutlets with a bare apex and smooth back, flesh thin, firm.

Distribution. Virginia to Georgia, Indiana to Arkansas. Moist rich soil. Naturalized to Pennsylvania and New Jersey. Possibly it may be naturalized at the Indiana station. More knowledge of distribution in southern Indiana is needed to settle this question.

A shrubby tree sometimes 9 m. (30 feet) high, with nearly erect branches and an oblong crown.

Specimens have been seen from: Wayne (Deam). It also occurs in the Wabash Valley.

PLATE 97.



CRATÆGUS PHÆNOPYRUM (Linnæus filis) Medicus. WASHINGTON
THORN. SCARLET HAW. ($\times \frac{1}{2}$.) (Fruit, $\times 1$.)

Horticultural uses. This is one of the most desirable thorns for ornamental planting and hedges. Its scarlet autumn foliage and beautiful little scarlet fruit persist for a long time. It is also one of the American thorns long in cultivation.

According to the treatment of the genus *Cratægus* in Britton and Brown's Illustrated Flora, 2d Edition, the range of the following species extend into Indiana.

Throughout the State—

C. Boyntoni.
C. intricata.
C. straminea.

In the southern part of the State—

C. berberifolia.
C. denaria.
C. fecunda.
C. collina.
C. ovata.

In the northern part of the State—

C. Brainerdi.
C. lucorum.
C. chrysocarpa.
C. roanensis.
C. filipes.
C. beata.
C. villipes.
C. Pringlei.
C. albicans.

AMYGDALACEÆ. THE PLUM FAMILY.

Leaves alternate, simple, rather thick, usually serrate, stalked, stipules early fugacious; flowers regular, perfect, calyx and corolla 5-merous; fruit a 1-seeded drupe. The trees of this family exude a gum when wounded, and those that occur in our area bear edible fruit.

Flowers corymbose, appearing before or with the leaves

on branchlets of the previous year..... 1 *Prunus*.

Flowers racemose, appearing after the leaves on branch-

lets of the year..... 2 *Padus*.

PRÛNUS. THE PLUMS AND CHERRIES.

(From *prunus*, the Latin word for plum.)

Cherries, leaves shiny above; flowers small, petals mostly

4-6 mm. ($\frac{1}{4}$ inch) long; stone of fruit globose..... 1 *P. pennsylvanica*.

Plums, leaves dull above; petals 7-12 mm. ($\frac{1}{3}$ - $\frac{1}{2}$ inch)

long; stone of fruit flattened.

Teeth of leaves sharp pointed and ending in a callous

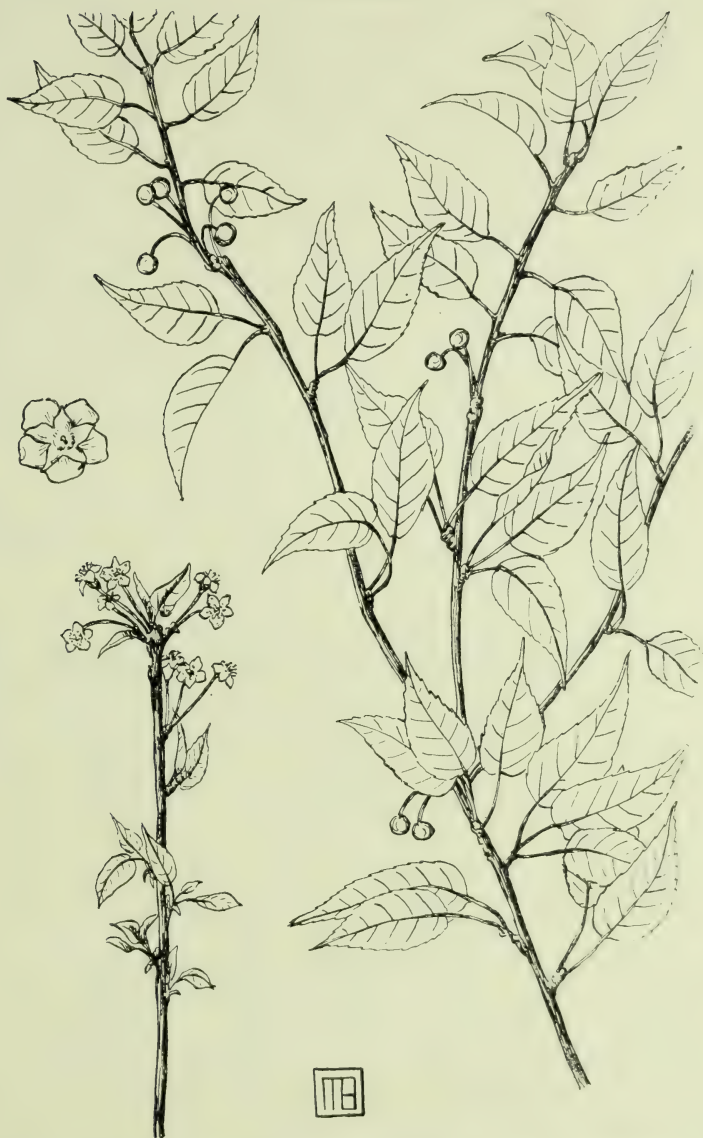
tip; calyx lobes without glands..... 2 *P. americana*.

Teeth of leaves rounded and the vein ending in the cen-

ter tipped by a gland; calyx lobes glandular..... 3 *P. nigra*.

1. *Prunus pennsylvanica* Linnaeus fil. WILD RED CHERRY. Plate 98. Bark of trunk reddish-brown, redder than that of the common wild cherry; leaves oblong-lanceolate, 4-10 cm. ($1\frac{1}{2}$ -4 inches) long, thin, usually long taper-pointed, tapering or rounded at the base, serrate, sometimes doubly serrate, many of the teeth

PLATE 98.



PRUNUS PENNSYLVANICA Linnaeus fil. WILD RED CHERRY. ($\times \frac{1}{2}$)
(Flower, $\times 2$.)

gland-tipped, yellow-green at maturity, smooth or nearly so when they unfold, becoming smooth both above and below at maturity; flowers appear with the leaves in April or May, in axillary clusters of 2-8, pedicels 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch) long in the flowering stage, calyx greenish-white and smooth; fruit ripens in June or July, globose, about 5 mm. ($\frac{3}{16}$ inch) in diameter, bright red, flesh thin and sour; stone rounded at the base, pointed at the apex, slightly ridged on one edge.

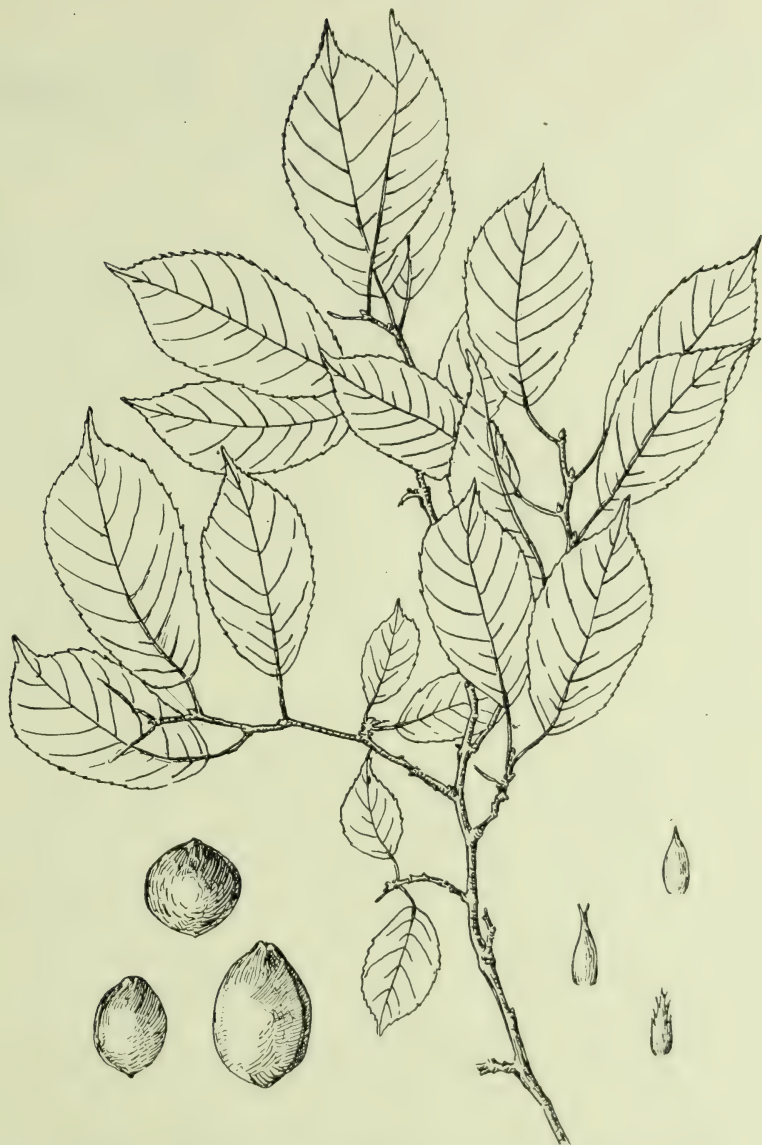
Distribution. Newfoundland, British Columbia, south to Pennsylvania, northern Indiana and Illinois, and central Iowa; also on the eastern slopes of the Rocky Mountains, and in the high mountains of North Carolina and Tennessee. In Indiana it is found only in the northern part of the State. It is locally more or less frequent on the wooded sand dunes along Lake Michigan. If found in other stations it must be regarded as rare and local. Along Lake Michigan it is a small sized tree, usually associated with the common wild cherry, June-berry and black oak.

The published records of the distribution are as follows: Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Kosciusko (Chipman); Lake and Porter (Blatchley).

Additional records are: Porter (Deam).

2. *Prunus americana* Marshall. WILD PLUM. Plate 99. Bark on the trunk of old trees dark reddish-brown, separating into thin persisting plates; twigs at first smooth or hairy, light green, becoming reddish-brown and smooth or some remaining densely hairy until the end of the season; winter buds very small, sharp-pointed, a light or dark brown; leaves oval or slightly obovate, 4-9 cm. ($1\frac{1}{2}$ - $3\frac{1}{2}$ inches) long, rather thin or thick, narrowed or rounded at the base, taper-pointed at the apex, sharply serrated with teeth projecting forward and inward, at maturity smooth and a yellow or dark green above, paler and more or less pubescent beneath especially along the prominent veins; petioles 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch) long, sometimes with 1 or 2 glands near the base of the blade; flowers appear in April or May before or with the leaves, white, about 2 cm. ($\frac{3}{4}$ inch) across, 2-5 in a cluster; calyx lobes lanceolate, entire or more frequently lacerated at least near the apex, or only forked at the apex, the lacerations ending in callous tips, lobes smooth or pubescent both within and without, usually pubescent at least within; fruit ripens in July or September, globular or somewhat oblong, about 2 cm. ($\frac{3}{4}$ inch) long, red at maturity, flesh yellow and tart; stone about 1.5 cm. ($\frac{1}{2}$ inch) long, double convex, oval to nearly orbicular in out-

PLATE 99.



PRUNUS AMERICANA Marshall. WILD RED PLUM. ($\times \frac{1}{2}$.)
(Stone, $\times 1$.) (Calyx lobes, $\times 3$.)

line, about half as wide as long or wider, one side having a groove on each face near the edge. This species is extremely variable and it is hoped some one can give it a detailed study.

Distribution. New York to Montana, south to Florida and west to Texas. Found throughout Indiana, usually along the banks of streams, and the sides of ravines. It generally occurs in open places and at present is more or less frequent along unkept fences. Although general in its distribution it is more or less rare in our area. It is a small tree and is usually found growing in clumps.

The published records of the distribution are as follows: Cass (Hessler); Clark (Smith); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Barnes), (Coulter) and (Young); Knox (Ridgway); Kosciusko (Chipman), (Coulter) and (Scott); Lake (Blatchley); Marion (Blatchley) and (Wilson); Marshall (Hessler); Miami (Gorby); Monroe (Blatchley); Noble (Van Gorder); Porter (Blatchley); Posey (Schneck); Putnam (MacDougal); Steuben (Bradner); Tippecanoe (Cunningham); Vigo (Blatchley); Wayne (Petty and Markle).

Additional records are: Montgomery (Evans); Putnam (Grimes); Tippecanoe (Coulter); Blackford, Clark, Dearborn, Delaware, Harrison, Lawrence, Marion, Starke, Vermillion, Warren and Wells (Deam).

Economic uses. Tree too small and rare to be of any economic importance.

3. *Prunus nigra* Aiton. WILD PLUM. Plate 100. Bark brown, separating and rolling back from one edge; twigs at first green and smooth or hairy, becoming smooth and reddish-brown; winter buds brown, acute, scales blunt and more or less fringed with hairs; leaves oval to obovate, 4-10 cm. ($1\frac{1}{2}$ -4 inches) long, rounded or slightly narrowed at the base, taper-pointed at the apex, margins with rounded teeth ending in a gland, sparingly hairy on both surfaces when they expand, becoming at maturity a dull dark green above, paler beneath, slightly pubescent both above and below, or sometimes almost glabrous; petioles 0.5-2 cm. ($\frac{1}{4}$ - $\frac{3}{4}$ inch) long, usually bearing 1 or 2 glands near the base of the blade, the channel pubescent; flowers appear in April before the leaves, 2-3 together, about 1.5 cm. ($\frac{1}{2}$ inch) across, white turning pinkish; calyx lobes ovate and blunt, sometimes narrower, the margins minutely serrate and tipped with dark red glands, smooth or nearly so on both surfaces, usually with a border of hairs at the base within; fruit ripens

PLATE 100



PRUNUS NIGRA Aiton. WILD OR CANADA PLUM. ($\times \frac{1}{2}$.) (Stone, $\times 1$.)
(Calyx lobe, $\times 3$.)

in June or July, oval and red; stone double convex, about 1.5 cm. ($\frac{1}{2}$ inch) long, half as thick, oval in outline, one side having a groove on each face near the edge.

Distribution. Newfoundland throughout the valley of the St. Lawrence, west to Manitoba, south to Massachusetts, Indiana and Minnesota. In Indiana it has been noted only in Wells County where it was found in two stations about 6 miles apart in wet woods. In one location it was a shrub and in the other it was a small tree about 1 dm. (4 inches) in diameter. The distribution of the species is to the north and its appearance in this State is exceptional.

The published records of the distribution are: Wells (Deam).

Economic uses. Too rare to be of any importance.

2. PADUS. THE WILD CHERRIES.

Pàdus serótina (Ehrhart) Agardh. WILD CHERRY. WILD BLACK CHERRY. CHERRY. (*Prunus serotina* Ehrhart). Plate 101. Bark on young trees smooth, becoming on old trees irregularly fissured and separating in small scaly plates, dark reddish-brown; branchlets slender, pale green at first, becoming a gray or reddish-brown; winter buds conic, acute, smooth, scales about the color of the branches or redder; leaves oval to lanceolate-oblong, 6-12 cm. ($2\frac{1}{2}$ -5 inches) long, generally drawn to a long point at the apex, wedge-shaped or rarely rounded at the base, finely serrated with incurved glandular teeth, hairy below when they unfold, becoming at maturity firm, smooth and dark green above, somewhat paler and smooth beneath, becoming a yellow-green before falling; petioles 1-2 cm. ($\frac{3}{8}$ - $\frac{3}{4}$ inch) long, usually bearing from 1-5 glands; flowers in racemes about 1 dm. (4 inches) long, appearing in May when the leaves are half grown; fruit ripens in July and August, globose, about 8 mm. ($\frac{3}{8}$ inch) in diameter, dark purple or black.

Distribution. Nova Scotia and South Dakota south to Florida and west to Texas. It is well distributed throughout Indiana. In the original forest it was rather infrequent, but has become frequent along fences, outnumbered only by the black walnut. In the original forest it grew to be a very tall and generally quite a large tree but frequently with a somewhat crooked trunk. It prefers a rather moist, rich and porous soil, although it adapts itself well to all kinds of soil and conditions which may be seen from its distribution along fences. It is most commonly associated with beech, sugar maple, white ash and linn.

The published records of the distribution are: Cass (Benedict and Elrod); Clark (Baird and Taylor) and (Smith); Daviess (Clem-

PLATE 101.



PADUS SEROTINA (Ehrhart) Agardh. WILD BLACK CHERRY. (x $\frac{1}{2}$.)

ents); Decatur (Ballard); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (J. M. Coulter) and (Young); Knox (Ridgway); Kosciusko (Chipman) and (Coulter); Lake (Blatchley) and (Clark); Marion (Wilson); Miami (Gorby); Monroe (Blatchley); vicinity of New Albany (Clapp); Noble (Van Gorder); Parke (Hobbs); Porter (Blatchley); Posey (Schneck); Putnam (MacDougal); Shelby (Ballard); Steuben (Bradner); Tippecanoe (Cunningham); Vigo (Blatchley); Wabash (Benedict and Elrod);

Additional records are: Putnam (Grimes); Tippecanoe (Coulter) and (Dorner); Adams, Allen, Brown, Clark, Dearborn, Delaware, Dubois, Hamilton, Jennings, Marshall, Montgomery, Morgan, Noble, Porter, Posey, Steuben, Vermillion, Washington and Wells (Deam).

Economic uses. Wood strong, hard, close-grained and reddish-brown. Used principally for furniture, office and store fixtures and for the backing of electrotypes. The bark is used in medicine. The fruit is often combined with other fruit to impart a flavor.

Horticultural value. It is hardy but is somewhat difficult to transplant, grows rapidly in the open while young, does not grow tall but develops a wide oval crown. It has not been used much for ornamental planting and can scarcely be recommended because it is subject to the San Jose scale and tent-caterpillar. It might be permitted to grow along fences because the fruit is an attraction for the birds and if the trees could not be utilized for anything else they could be worked into fence posts.

CAESALPINIACEÆ. THE SENNA FAMILY.

Leaves simple; flowers pink or rose; seed pod papery. . . . 1 Cercis.

Leaves compound; flowers not pink; seed pod woody or leathery.

Trees with thorns; stamens 3-5, longer than the corolla; pods flat and leathery; seeds about 1 cm. ($\frac{1}{2}$ inch) long. 2 Gleditsia.

Trees without thorns; stamens 10, shorter than the corolla; pods swollen, woody; seeds about 2 cm. (1 inch) long. 3 Gymnocladus.

1. CÉRCIS. THE REDBUDS.

(From *kerkis*, a name given by Theophrastus to a tree supposed to be the modern Cercis).

Cercis canadensis Linnaeus. REDBUD. FISH BLOSSOM. Plate 102. Bark of trunk on old trees fissured and sometimes dark

PLATE 102.



CERCIS CANADENSIS Linnaeus. REDBUD. ($\times \frac{1}{2}$.)

reddish-brown, shreddy, smooth on the branches; twigs glabrous, shining, light brown, becoming gray-brown; leaves alternate, broadly ovate, short-pointed, truncate or cordate at the base, 8-12 cm. (3-5 inches) long; flowers appear in April or May before the leaves in clusters of 4-8 on the branches of the previous season, pink or rose color; pods 5-9 cm. (2-3½ inches) long, hairy.

Distribution. Southern Ontario, east to the valley of the Delaware River, south to the Gulf States and west to eastern Nebraska and Texas. Generally found in all parts of Indiana. In the northern part of the State it is usually found in rich soil on the borders of streams where it occurs frequently. In the vicinity of Lake Michigan it is rare or wanting. In the southern part of the State it is quite generally distributed. It is frequent to common throughout this part; on the limestone and sandstone hills it is commonly a shrub, while in the valleys it reaches its greatest size. Commonly a small tree, 1-2 dm. (4-8 inches) in diameter and 6-10 m. (20-33 feet) in height.

The published records of the distribution are as follows: Carroll (Thompson); Clark (Baird and Taylor) and (Smith); Daviess (Clements); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Barnes), (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosei-usko (Clark) and (Coulter); Marion (Wilson); Miami (Gorby); Monroe (Blatchley); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (MacDougal); Steuben (Bradner); Tippecanoe (Cunningham); Vigo (Blatchley); Wayne (Petty and Markle).

Additional records are: Montgomery (Evans); Putnam (Cook) and (Grimes); Tippecanoe (Coulter); Bartholomew, Blackford, Clark, Crawford, Decatur, Fountain, Franklin, Fulton, Hancock, Harrison, Johnson, Knox, Madison, Marion, Montgomery, Parke, Owen, Posey, Putnam, Shelby, Starke, Vermillion, Warren and Wells (Deam).

Economic uses. Wood heavy, hard, weak, sap wood light color, heart wood a rich brown color, takes a good polish. Not of sufficient size and abundance to be of any economic importance. In the forest it is generally regarded as a weed tree and is removed.

Horticultural value. It is frequently recommended for ornamental planting where a small tree is required. Adapted to a moist rich soil; grows rapidly; shade enduring, for which reason it can be used under taller trees in landscape work.

2. GLEDÍTSIA. THE HONEY LOCUSTS.

(Named in honor of John Gottlieb Gleditsch, a German botanist.)

- Leaflets lanceolate-oblong; thorns many, long and usually forked; pods linear, seeds in a sweet pulp..... 1 *G. triacanthos*.
 Leaflets ovate-oblong; thorns few and usually simple; pods oval, pulpless, 1 or 2 seeded..... 2 *G. aquatica*.

1. *Gleditsia triacanthos* Linnæus. HONEY LOCUST. THORN TREE. Plate 103. Bark fissured, gray brown to almost black; twigs reddish to greenish-brown, armed with stout spines; leaves pinnate or twice pinnate, hairy when expanding, practically glabrous at maturity; flowers appear in May when the leaves are about half grown, inconspicuous, greenish-yellow, the staminate in clustered racemes, the pistillate usually in few-flowered racemes, rich in honey, and their appearance will be announced by the hum the swarm of insects make visiting them; fruit a flat, linear twisted pod, 20-40 cm. (8-16 inches) long, with several seeds.

Distribution. Southern Ontario east to the Alleghany mountains, south to northern Alabama and Mississippi and west to eastern Nebraska, Kansas and Texas. It is found in sparing numbers in all parts of the State. In the northern part it is confined generally to the borders of streams, while in the southern part of the State it is frequently found on the top of the wooded hills. In Gibson, Knox and Posey Counties it is generally frequent or common on the borders of ponds and sloughs. It is usually a tree of medium size, though in the southern part of the State it grows to be a large tree.

The published records of the distribution are as follows: Cass (Hessler); Clark (Baird and Taylor) and (Smith); Daviess (Clements); Dearborn (Collins); Decatur (Ballard); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fayette (Hessler); Fountain (Brown); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Barnes), (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Coulter); Marion (Wilson); Miami (Gorby); Monroe (Blatchley); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (MacDougal); Steuben (Bradner); Tippecanoe (Coulter); Vigo (Blatchley); Wayne (Petty and Markle).

Additional records are: Knox (Schneck); Montgomery (Evans); Tippecanoe (Dorner); Fountain, Posey, Vermillion and Wells (Deam).

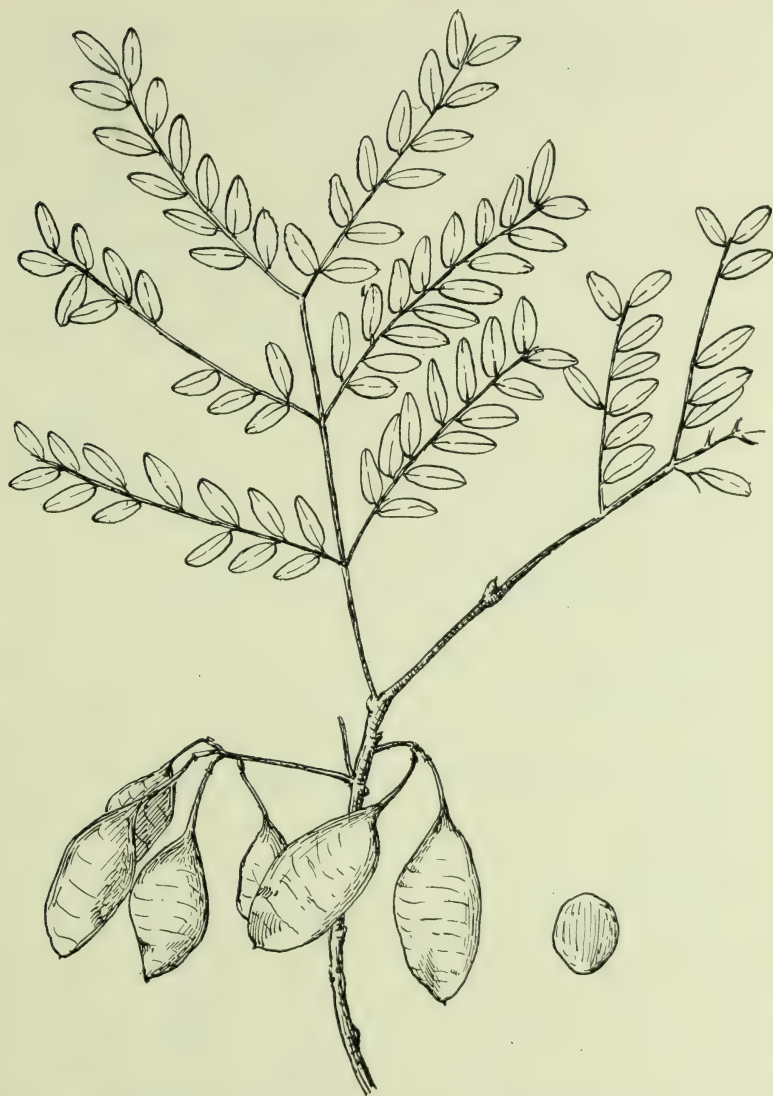
Economic uses. Wood heavy, hard, strong, coarse-grained, takes a good polish, reddish-brown. It is claimed to be very dur-

PLATE 103.



GLEDITSIA TRIACANTHOS Linnaeus. HONEY LOCUST. ($\times \frac{1}{2}$)
(Fruit, $\times \frac{1}{4}$.) (Seed, $\times 1$.)

PLATE 104.



GLEDITSIA AQUATICA Marshall. WATER HONEY LOCUST. ($\times \frac{1}{2}$.)
(Seed, $\times 1$.)

able in the ground, but experience proves that the heart wood is about as durable as white oak, while the sap wood decays very rapidly. Used for fence posts.

Horticultural value. It is frequently used for ornamental planting. It is adapted to all kinds of soil, although its preference is for a moist soil, grows rapidly and is free from disease. Nursery-men now offer a thornless variety which is preferred to the native tree.

2. *Gleditsia aquática* Marshall. HONEY LOCUST. THORN TREE. Plate 104. Bark smoothish, dull gray; twigs yellowish-brown turning to a gray or reddish-brown, thorns simple or with one or two short branches; leaves pinnate or twice pinnate; flowers similar to the preceding species; fruit 3-5 cm. ($1\frac{1}{4}$ -2 inches) long and 1.5-2 cm. ($\frac{3}{4}$ -1 inch) wide, one seeded, rarely two.

Distribution. Southern Illinois and Indiana, south to the Gulf States and west to Texas. Rare and local in its general distribution and in Indiana confined to a few localities in the extreme southwestern counties where it is found in sloughs and cypress swamps.

The published records of the distribution are as follows: Gibson (Schneck); Knox (Ridgway) and (Thomas); Miami (Gorby);* Posey (Schneck).

Additional records are: Knox (Schneck).

Economic uses. Too rare to be of any economic importance.

3. *GYMNÓCLADUS*. THE COFFEE TREE.

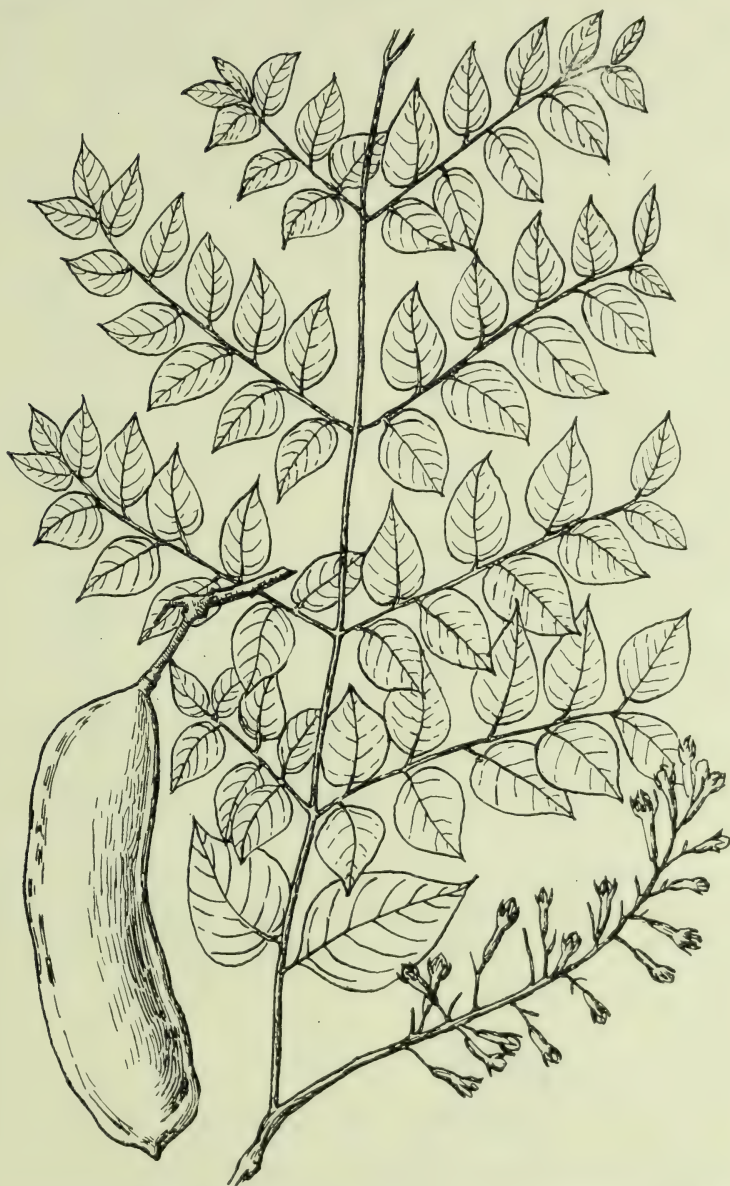
(From the Greek, *gymnos*, naked, *klados*, branch; in reference to the naked appearance of the tree in the winter condition).

***Gymnocladus dioica* (Linnæus) Koch. COFFEENUT TREE.** Plate 105. Bark of the trunk deeply fissured, dark gray; twigs at first hairy, at length smooth, brown or gray, splotted with brown; leaves twice pinnate, 3-9 dm. (12-36 inches) long, 4-6 dm. (16-24 inches) wide; leaflets ovate, 3-6 cm. ($1\frac{1}{4}$ -2 $\frac{1}{4}$ inches) long; flowers appear in May, in whitish terminal racemes, the staminate in clusters, 7-10 cm. ($2\frac{3}{4}$ -4 inches) long, the pistillate in racemes 2-3 dm. (4-12 inches) long; fruit a pod about 1.5 dm. (6 inches) long, seeds imbedded in a dark-colored sweet pulp.

Distribution. Southern Ontario and central New York, south to Tennessee and west to eastern Nebraska and Oklahoma. No doubt

*This record is evidently an error.

PLATE 105.



GYMNOCLADUS DIOICA (Linnæus) Koch. COFFEENUT. (x ½.)

this tree occurs in all parts of Indiana. It is rare in the northern part and increases in frequency toward the south. It is most abundant in rich soil near streams and just back of the flood plain. In the southern part of the State it is found in patches, where it is sometimes the principal species on areas of an acre or more. In the northern part of the State it is commonly a medium sized tree, 8-15 m. (25-50 feet) high and 3-5 dm. (12-20 inches) in diameter. In the southern part of the State it is usually somewhat larger.

The published records of the distribution are as follows: Cass (Hessler); Clark (Baird and Taylor); Dearborn (Collins); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Barnes) and (Coulter); Knox (Ridgway) and (Thomas); Kosciusko and Laporte (Coulter); Marion (Wilson); Miami (Gorby); Monroe (Blatchley); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (MacDougal); Steuben (Bradner); Tippecanoe (Cunningham); Vigo (Blatchley).

Additional records are: Putnam (Grimes); Tippecanoe (Coulter); Hancock, Orange, Vermillion, Wells (Deam).

Economic uses. Wood heavy, not hard, strong, coarse-grained, checks on drying, works easily, takes a high polish, sap wood consisting of 5 or 6 years' growth, light colored, heart wood light brown with a tinge of red. It is said to be durable in contact with the soil, although this is disputed by a majority of those who have tried it. The pioneers used the roasted nuts as a substitute for coffee to some extent, which gave the tree its common name. The bruised leaves covered with sweetened water were used as a fly poison.

Horticultural value. It is occasionally planted as an ornamental tree. It is not a rapidly growing tree, leaves appear late and fall early. The absence of small branches make it unattractive in the winter condition and when used it is no doubt to satisfy a desire for variety.

FABACEÆ. THE PEA FAMILY.

ROBINIA THE LOCUST.

Robinia Pseudo-Acacia Linnæus. LOCUST. BLACK LOCUST. YELLOW LOCUST. Plate 106. Bark deeply furrowed, dark brown; twigs slender, zigzag, green and hairy when young, becoming smooth and reddish-brown, older branches armed with pairs of short and

PLATE 106.

ROBINIA PSEUDO-ACACIA Linnaeus. BLACK LOCUST. ($\times \frac{1}{2}$.)

sharp spines; leaves odd-pinnate, 1.5-3 dm. (6-12 inches) long; flowers in loose racemes, white, very fragrant, flowering season May or June; fruit a pod about 7 cm. (3 inches) long, smooth.

Distribution. Along the mountains from Pennsylvania south to Georgia and again appearing in the Ozark Mountains in Missouri. It is doubtful if it was native to the State.* It has been cultivated and has escaped in all parts of Indiana. A medium sized tree, sometimes attaining a height of 25 m. (80 feet) and a meter (39 inches) in diameter.

The published records of the distribution are as follows: Clark (Baird and Taylor); Daviess (Clements) and (Hessler); Dearborn (Collins); Decatur (Ballard); Delaware, Jay, Randolph and Wayne (Phinney); Franklin (Meyneke); Gibson (Schneck); Jefferson (Coulter) and (Young); Knox (Thomas); Marion (Douglas); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Posey (Schneck); Putnam (MacDougal); Shelby (Ballard); Steuben (Bradner); Vigo (Blatchley); Wayne (Petty and Markle).

Additional records are: Montgomery (Evans) and (Thompson); Putnam (Grimes) and (Lewis and Bridges); Tippecanoe (Coulter) and (Dorner); Bartholomew, Franklin, Hamilton, Johnson, Laporte, Montgomery, Steuben and Wells (Deam).

Economic uses. Wood heavy, very hard, close-grained, takes a good polish, sap wood yellow, heart wood light brown and very durable in contact with the soil. Used principally for fence posts and crossties.

Horticultural value. This tree was formerly extensively used for ornamental planting. The homes of many of the pioneers have a row of these trees from a half to a meter (19-39 inches) in diameter growing in front of their door. Groups of these trees in fields and along roadsides mark the location of the cabins of the old pioneers. The chief charm of the tree is the fragrance of its blossoms. The ornamental value is much lessened by the late appearance and the early falling of the leaves.

The tree is now used principally in forestry planting. It is adapted to all kinds of soil except a muck soil. It grows rapidly in a sandy and well drained soil. It is one of the most resistant to drought of any of our trees and for this reason is recommended for reforesting the steep and rocky hillsides of southern Indiana. It shows a rapid and healthy growth where many other species are not able

*"We had gazed at the majestic beech of this country (near Rising Sun) three feet in diameter; we had seen the honey locust, the black walnut, a buckeye of equal magnitude; and then we saw with surprise, the black locust almost a rival in stature." (Thomas' Western Travels, page 111, published in 1819).

to grow. It is propagated either from the seed or from seedlings. Where the ground can not be cultivated it is recommended that the trees be spaced 4x4 to 5x5 feet, and where the trees are to be cultivated they should be planted about 7x7 feet, and undercropped with corn for two or three years. The locust is not a shade enduring tree, so natural pruning is effective. However, it is recommended that the trees be gone over annually for three to five years and that very strong lateral branches be removed, and if the tree forks, that one part be removed. Wounds on the locust heal readily. Under good conditions the trees will attain a single post size in about 4 to 6 years, depending on the quality of the soil and the distance apart the trees are planted. This tree has a mortal enemy in the locust borer, and the planting of the tree for commercial purposes should be confined to the southern counties where it is not seriously damaged by this pest.

SIMAROUBACEÆ. THE QUASSIA FAMILY.

AILÁNTHUS. TREE OF HEAVEN.

Ailanthus glandulôsa Desfontaines. STINK TREE. TREE OF HEAVEN. Plate 107. Bark gray, thin, rough or fissured on old trees, smooth on the branches and young trees; twigs very robust, at the end of season a glossy light brown; leaves spiral on the branches, odd-pinnate, 3-10 dm. (12-40 inches) long; leaflets 13-41, margins entire or with few teeth, drawn to a long point; flowers appear in June, in large terminal panicles, the staminate flowers emit an offensive odor; fruit numerous, twisted and broadly winged, about 1 cm. ($\frac{3}{8}$ inch) wide and 4 cm. ($1\frac{1}{2}$ inches) long, the single seed near the center.

Distribution. Introduced from Asia. Now well established in many parts of Indiana. It is generally regarded as a weed tree on account of the rapidity and certainty with which it spreads from the seed scattered by the wind.

The published records of the distribution are as follows: Clark (Baird and Taylor); Delaware, Jay, Randolph and Wayne (Phinney); Fayette (Hessler); Franklin (Meyncke); Hamilton (Wilson); Jefferson (J. M. Coulter), (S. Coulter) and (Young); Kosciusko (Chipman); Marion (Wilson); Monroe (Blatchley); Vigo (Blatchley).

Additional records are: Putnam (Grimes); Decatur and Wells (Deam).

Horticultural value. Adapted to all kinds of soils and all kinds of conditions. No tree will endure more abuse. Very ornamental

PLATE 107.



AILANTHUS GLANDULOSA Desfontaines. TREE OF HEAVEN. (x $\frac{1}{2}$.)

on account of its large compound, dark glossy green leaves, and later because of the rich color of its winged fruit. It is little used on account of the unpleasant odor of the staminate flowers and its disposition to spread by suckers.

AQUIFOLIACEÆ. THE HOLLY FAMILY.

ILEX. THE HOLLIES.

Ilex decidua Walter. Plate 108. Bark light brown and warty; branchlets yellow gray; leaves alternate, simple, obovate to lanceolate, leaf-blades 3-8 cm. (1-3 inches) long, usually long taper-pointed, sometimes rounded or notched, taper-pointed at the base, margins remotely shallow toothed, yellow green and smooth above, paler and somewhat pubescent beneath; flowers appear soon after the leaves begin to unfold on slender pedicels, usually in May; fruit ripening early in the fall and persisting on the branches during the winter, berry like, about 7 mm. ($\frac{1}{4}$ inch) in diameter, orange or orange-scarlet, usually containing 3-4 nutlets which are ribbed on the back.

Distribution. Virginia and southern Indiana south to Florida and west to Texas. In Indiana it is found only in the southwestern counties. It is rare and restricted to the borders of ponds and sloughs near the water courses. Where found it frequently forms dense thickets, and rarely reaches tree size.

The published records of the distribution are as follows: Gibson and Posey (Schneck); Knox (Ridgway); Monroe* (Barnes Catalogue of Indiana Plants).

Additional records are: Posey (Deam).

ACERACEÆ. THE MAPLE FAMILY.

ACER. THE MAPLES.

(From the Latin, *acer*, sharp or hard; refers to the hardness of the wood which was used in the making of spears).

Trees with terete branches; scaly buds; leaves opposite, long-petioled; fruit consists of two long-winged samaras. The sap of some of the species when concentrated yields the maple sugar and sirup of commerce.

Twigs greenish or purplish; leaves pinnate or trifoliate. 1 A. Negundo. Twigs reddish-brown; leaves simple, palmately-lobed.

*This is undoubtedly an error.

PLATE 108.

ILEX DECIDUA Walter. HOLLY. ($\times \frac{1}{2}$.)

Winter buds blunt, exposed scales 6-8, reddish, tomentose ciliate; flowers appearing before the leaves.

Sides of the V-shaped notches of the leaves straight, lobes of the leaves usually 3; flowers with petals, on pedicels; young fruit glabrous..... 2 *A. rubrum*.

Sides of the V-shaped notches of the leaves concave, lobes of the leaves usually 5; flowers without petals, sub-sessile; young fruit tomentose..... 3 *A. saccharinum*.

Winter buds acute, exposed scales 8-16, usually 12-16, brown to nearly black, usually with a silky pubescence; flowers appear after the leaves.

Bark usually gray; leaves whitish or glaucous beneath, glabrous at maturity, appendages at the base of the petioles wanting..... 4 *A. saccharum*.

Bark dark brown to nearly black; leaves green beneath, pubescent at least on the veins beneath at maturity, and with two appendages at the base of the petioles..... 5 *A. nigrum*.

1. *Acer Negúndo* Linnæus. BOX ELDER. Plate 109. Bark on young trees gray and smooth, on old trees thick, light to dark brown and deeply fissured, very much resembling the bark of *Fraxinus pennsylvanica*; twigs smooth, light green, sometimes purplish and glaucous; leaves usually with 3 leaflets, sometimes with 5, leaflets thin, varying from ovate to oval or obovate, acute at the apex, rounded or wedge-shaped at the base, margin entire, coarsely serrate or rarely 3-lobed, pubescent on both sides when young, becoming smooth or nearly so at maturity, 5-10 cm. (2-4 inches) long; flowers appear with the leaves in clusters borne on the twigs of the past season, the staminate and pistillate in different clusters on different trees or sometimes on the same tree, flowering period April, May or June; fruit ripens in early summer, the samaras smooth or slightly pubescent, 2-4 cm. ($\frac{3}{4}$ -1 $\frac{1}{2}$ inches) long.

Distribution. Western Vermont south to Florida and west to the Rocky Mountains. Rare east of the Appalachian Mountains. Rare to infrequent in northern Indiana, increasing in numbers in the southern counties where it is sometimes frequent, or sometimes common along streams. It is generally found near streams, lakes and swamps. It is usually a medium sized tree, attaining its greatest size in the southwestern counties.

The published records of the distribution are as follows: Carroll (Thompson); Cass (Hessler); Clark (Baird and Taylor); Daviess (Clements); Dearborn (Collins); Delaware (Phinney); Fountain (Brown); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Barnes), (Coulter) and (Young);

PLATE 109.

ACER NEGUNDO Linnæus. BOX ELDER. (X $\frac{1}{2}$.)

Knox (Ridgway) and (Thomas); Kosciusko (Clark) and (Coulter); Marion (Wilson); Marshall (Hessler); Miami (Gorby); Monroe Blatchley); Noble (Van Gorder); Posey (Schneck); Putnam (MacDougall); Shelby (Ballard); Steuben (Bradner); Vigo (Blatchley); Wayne (Petry and Markle).

Additional records are: Montgomery (Evans); Putnam (Grimes); Bartholomew, Decatur, Delaware, Hamilton, Hancock, Lagrange, Madison, Morgan, Owen, Posey, Putnam, Vermillion and Wells (Deam).

Economic uses. Wood light, soft, weak, creamy-white, close-grained. Too rare and small to be of much economic value.

Horticultural value. Adapted to a moist rich soil; grows rapidly; easily transplanted; crown oval; leaf period short. The pale green of the twigs makes it attractive in the winter condition. Frequently used for ornamental and shade tree purposes. The tree is subject to the attack of both fungous diseases and insects which discourage its use.

2. *Acer rubrum* Linnæus. SOFT MAPLE. RED MAPLE. SWAMP MAPLE. Plate 110. Bark on young trees and the branches smooth and light gray, becoming on old trees dark gray and scaly; young twigs smooth and reddish, becoming gray; leaves 3-5 lobed, 5-12 cm. (2-4 $\frac{3}{4}$ inches) long, truncate or more or less cordate at the base, the middle lobe longer than the others, its base with parallel or with pyramidal sides, irregularly serrate or toothed, hairy when young, glabrous above and more or less hairy beneath at maturity, medium green above, whitish beneath; flowering period March or April; flowers scarlet, red or rarely yellow, in dense clusters in the axils of the leaves of the previous year, the staminate and pistillate in separate clusters on the same or different trees; fruit on long drooping pedicels, ripens in the spring or early summer, red or scarlet, sometimes tinged with green, varying from 2-3.5 cm. ($\frac{3}{4}$ -1 $\frac{3}{4}$ inches) in length, wings converging at first, divergent at maturity.

Distribution. Quebec to Ontario south to Florida and west to Iowa and Texas. Frequent to common in all parts of Indiana in low wet soil, and in the southern part of the State it is as frequently found on the slopes and tops of hills. Most abundant in low ground bordering lakes and swamps. A medium to large sized tree of rapid growth.

The published records of the distribution are as follows: Cass (Benedict and Elrod); Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Decatur (Ballard); Delaware (Phinney); Dela

PLATE 110.

ACER RUBRUM Linnaeus. RED MAPLE. (x $\frac{1}{2}$.)

ware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyncke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Barnes), (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Scott); Marion (Wilson); Miami (Gorby); Monroe (Blatchley); vicinity of New Albany (Clapp); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (MacDougal); Steuben (Bradner); Tippecanoe (Cunningham); Vigo (Blatchley); Wabash (Benedict and Elrod).

Additional records are: Montgomery (Evans); Putnam (Grimes); Tippecanoe (Coulter); Allen, Clark, Porter, Posey, Putnam, Scott, Steuben and Wells (Deam).

Economic uses. Wood heavy, light or reddish-brown, not strong, close-grained. Used for frame lumber, furniture, staves and heading.

Horticultural value. Adapted to a moist rich soil, grows rapidly, transplants easily, crown oval, when crowded the branches grow long and are easily broken off, leaf period long. It is frequently used for ornamental shade purposes. The use of the red and silver maple has been discouraged by the appearance of the maple borer, cottony maple scale and tussock moth. The soft maples are more frequently attacked by the borers than the hard maples.

3. *Acer saccharinum* Linnæus. SOFT MAPLE. SILVER MAPLE. WHITE MAPLE. Plate 111. Bark of young trees and branches smooth and gray, becoming on older trunks reddish-brown, freely splitting into thin scales; twigs brownish to red, turning up at the end; leaves truncate or somewhat heart-shaped at the base, deeply 5-lobed, the middle lobe frequently 3-lobed, the lobes pointed and sharply toothed, 6-14 cm. ($2\frac{1}{2}$ - $5\frac{1}{2}$ inches) long, hairy beneath when young, smooth on both surfaces at maturity, medium green above, whitish beneath, petioles long; flowering period March or April; flowers greenish, in clusters in the axils of the leaves of the previous year, the staminate and pistillate in separate clusters on the same or different trees; fruit matures in late spring, green, smooth and more or less divergent at maturity, 4-7 cm. ($1\frac{1}{2}$ - $2\frac{3}{4}$ inches) long.

Distribution. New Brunswick, southern Ontario, South Dakota to Florida. Rare on the Atlantic coast. Frequent to common in all parts of Indiana in wet ground. Grows in situations similar to that of the red maple.

The published records of the distribution are as follows: Carol (Thompson); Cass (Benedict and Elrod); Clark (Baird and Tay-

PLATE 111.

ACER SACCHARINUM Linnaeus. SILVER MAPLE. (x $\frac{1}{2}$.)

lor); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Decatur (Ballard); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Barnes), (Coulter) and (Young); Knox (Ridgway), (Spillman) and (Thomas); Kosciusko (Clark), (Coulter) and (Youse); Marion (Wilson); Miami (Gorby); Monroe (Blatchley); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (MacDougal); Shelby (Ballard); Steuben (Bradner); Tippecanoe (Cunningham); Vigo (Blatchley); Wabash (Benedict and Elrod).

Additional records are: Putnam (Grimes); Tippecanoe (Coulter); Posey and Wells (Deam).

Economic uses. Wood hard, close-grained, strong, brittle, pale brown. Uses same as those of the red maple. Lumber dealers put the red and silver maple into one class and designate them as soft maple. On drying the soft maples do not warp as much as the hard maple.

Horticultural value. Same as the preceding.

4. *Acer saccharum* Marshall. SUGAR MAPLE. SUGAR TREE. HARD MAPLE. ROCK MAPLE. Plate 112. Bark of young trees and branches light brown, smooth or rough, becoming on old trees a gray or dark brown, fissured, tardily separating into rather thick scales, which turn up at the side; twigs reddish or gray, mostly glossy, ridge of leaf scars slightly pubescent; leaves more or less cordate at the base, usually 3-lobed, sometimes 5-lobed, 6-12 cm. ($2\frac{1}{4}$ - $4\frac{3}{4}$ inches) long, hairy beneath when young, becoming smooth at maturity, rarely remaining pubescent, dark green above, whitish beneath; flowering period April, May or June, flowers on pedicels 4-6 cm. ($1\frac{1}{2}$ - $2\frac{1}{2}$ inches) long which are usually hairy, the staminate and pistillate in separate clusters on the same or on different trees, rarely both kinds of flowers in the same cluster, the staminate usually on undeveloped naked branches with leaves at the base, greenish yellow; fruit ripens late in the summer or early autumn, glabrous, 2-3 cm. ($\frac{3}{4}$ - $1\frac{1}{4}$ inches) long, wings diverging.

Distribution. Newfoundland south to Georgia and west to Manitoba, Nebraska and Texas. Frequent to common in all parts of Indiana in rich and well drained uplands. It is usually associated with the beech and black maple.

The published records of the distribution are as follows: Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fount-

PLATE 112.

ACER SACCHARUM Marshall. SUGAR MAPLE. (x $\frac{1}{2}$.)

ain (Brown); Franklin (Haymond); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter); Knox (Ridgway) and (Thomas); Kosciusko (Clark); Marion (Wilson); Miami (Gorby); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Wayne (Petty and Markle).

Additional records are: Vicinity of New Albany (Clapp); Putnam (Grimes) and (MacDougal); Tippecanoe (Coulter); Fulton, Harrison, Hendricks, Jennings, Laporte, Madison, Posey, Steuben, Vermillion, Warren and Wells (Deam).

Economic uses. Wood heavy, hard, strong, close-grained, takes a good polish, sap wood light, heart wood light brown, air dries well but warps badly in the kiln. Used in building for frame material and flooring, axles, neck yokes, bolsters, sand-boards, nibs for scythe and cradle snaths. One of our best woods for fuel.

The maple sugar and sirup of commerce is made principally from this species. The amount and sweetness of the sap depends upon the season and the tree. On an average it takes from 3 to 4 gallons of sap to make a pound of sugar, and an average sized tree will usually yield about 3-4 pounds of sugar. In 1900 Indiana ranked third in the production of maple sirup, making 179,576 gallons and 51,900 pounds of sugar. Formerly there were many "sugar camps" but they are becoming rarer each year.

Horticultural value. It is adapted to a moderately dry rich soil; transplants with some difficulty if trees are removed from the forest, nursery stock doing much better; grows slowly, but is hardy and long lived; leaf period long. It is one of the most desirable and most used of our native trees for ornamental and shade tree purposes. It has enemies in the maple borer, tussock moth and cottony maple scale.

5. *Acer nigrum* Michaux. BLACK SUGAR. BLACK MAPLE. Plate 113. Bark of young trees and the branches smooth and gray, becoming on older trees thick, deeply furrowed, very tight and not exfoliating, usually dark brown to nearly black; branchlets light orange color; ridges of leaf scars prominently pubescent; leaves usually about as wide as long, 6-15 cm. (2¼-6 inches) long, 3-lobed, sometimes 5-lobed, the lobes acute, more or less cordate at the base, hairy beneath when young, becoming at maturity dark green and glabrous above, a yellow green and remaining somewhat hairy beneath, petioles hairy when young, becoming glabrous or nearly so at maturity, usually showing some hairs around the swollen base which later develop a scale-like appendage on each side; flowers

PLATE 113.

ACER NIGRUM Michx. BLACK SUGAR MAPLE. ($\times \frac{1}{2}$.)

yellow on more or less hairy pedicels, the staminate and pistillate in different clusters, sometimes on the same or different trees, flowering period April or May; fruit ripens late in the summer, glabrous, wings diverging slightly more than those of the preceding species. This tree so closely resembles the preceding that by some authors it is regarded as only a variety of it. It can usually be easily distinguished from the sugar maple by its tighter bark, somewhat larger and more drooping leaves which are a shade darker, and by the yellow green color of the under surface of the leaves. The under surface of the leaves of the sugar maple in our area is whitish or glaucous. The sides of the leaves of the black maple droop and the bases of the petioles of especially the last pair of leaves develop two scales which by the end of the season are conspicuous and resemble stipules.

Distribution. Quebec south to Georgia and west to South Dakota, Kansas and Louisiana. In Indiana it is widely distributed. It is more or less frequent in all the area where it is found. It is usually found associated with the sugar maple, which it resembles in size and appearance. It prefers a moist rich soil, where it is often more frequent than the sugar maple.

The published records of the distribution are as follows: Clark (Baird and Taylor); Delaware (Phinney); Gibson (Schneck); Hamilton (Wilson); Kosciusko (Coulter); Marion (Wilson); Monroe (Blatchley); Posey (Schneck); Putnam (MacDougal); Vigo (Blatchley).

Additional records are: Putnam (Grimes); Tippecanoe (Coulter) and (Dorner); Delaware, Jefferson, Jennings, Montgomery, Vermillion and Wells (Deam).

Economic uses. Same as the preceding species. It is claimed that the sap of this species is the sweetest of any of the maples.

ÆSCULACEÆ. THE BUCKEYE FAMILY.

ÆSCULUS. THE BUCKEYES.

Trees with brown or ashy-gray, scaly bark; twigs stout; buds large; leaves opposite, palmately divided into 5-9 ovate to oblong divisions, the divisions serrate, hairy when young, glabrous at maturity except a few hairs along the veins beneath; flowers appearing when the leaves are half grown in terminal panicles; fruit a yellowish-green, three-lobed capsule, generally with one seed, sometimes

two, rich dark brown, 2-4 cm. ($\frac{3}{4}$ -1 $\frac{1}{2}$ inches) broad. The fruit is poisonous to stock, although it seldom proves fatal.

Anthers protruding from the flower; fruit warty..... 1 *A. glabra*.

Anthers included in flower, fruit smooth..... 2 *A. octandra*.

1. *Æsculus glàbra* Willdenow. BUCKEYE. Plate 114. Branchlets at first covered with hairs which soon disappear, orange brown becoming a reddish-brown; terminal bud sharp-pointed, about 1.5 cm. ($\frac{1}{2}$ inch) long, scales of bud nearly triangular; flowers appear in May, pale yellow green.

Distribution. Pennsylvania to Iowa, south to Alabama and west to Kansas. Probably native to every county of Indiana, although scarce at present because it has been destroyed on account of the poisonous character of its fruit. It is rare in the extreme northern, northwestern and southwestern counties. In the other parts of the State it is locally frequent in moist rich soil, usually along streams. In the greater part of the State it is frequently associated with sugar maple and beech.

The published records of the distribution are as follows: Boone (Coulter); Clark (Baird and Taylor); Clinton (Coulter); Dearborn (Collins); Decatur (Ballard); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Hendricks (Trucksess); Jay (M'Caslin); Jefferson (Barnes), (Coulter) and (Young); Knox (Thomas); Kosciusko (Clark); Marion (Wilson); Miami (Gorby); Monroe (Blatchley); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Putnam (MacDougal); Shelby (Ballard); Steuben (Bradner); Tippecanoe (Cunningham); Vigo (Blatchley); Wayne (Petty and Markle).

Additional records are: Crawford (Schneck); Montgomery (Evans); Putnam (Grimes); Tippecanoe (Coulter) and (Dorner); Bartholomew, Crawford, Dekalb, Delaware, Franklin, Hamilton, Hancock, Henry, Howard, Jennings, Madison, Marion, Montgomery, Putnam, Shelby, Spencer, Vermillion, Wabash and Wells (Deam).

Economic uses. Wood white, soft, not strong, rather tough. Used for pulp. The fact that the wood is of little commercial value and that the fruit is poisonous to stock has caused it to be cut until at present only isolated trees remain. For ornamental use it has been supplanted by the horse-chestnut.

2. *Æsculus octàndra* Marshall. BUCKEYE. Plate 115. Branchlets orange-brown, hairy when young, soon becoming glabrous and

PLATE 114.



ÆSCULUS GLABRA Willdenow. BUCKEYE. ($\times \frac{1}{2}$.)

PLATE 115.

*AESCULUS OCTANDRA* Marshall. SWEET BUCKEYE. (x $\frac{1}{2}$.)

turning a pale brown; terminal buds blunt, 2-2.5 cm. ($\frac{3}{4}$ -1 inch) long, scales ovate; leaflets irregularly serrate; flowers appear in May, yellow or purplish.

Distribution. Western Pennsylvania, west along the Ohio River to Missouri and south to northern Alabama. Very rare in Indiana and found only in a few counties along the Ohio River. It is the largest tree of the genus in our area.

The published records of the distribution are as follows: Clark (Baird and Taylor); Dearborn (Collins); Delaware (Phinney); Jay (M'Caslin); Jefferson (Coulter) and (Young); vicinity of New Albany (Clapp).

Economic value. Too rare to be of any economic importance.

TILIACEÆ. THE LINDEN FAMILY.

TILIA. THE BASSWOODS.

Trees with medium sized twigs; leaves alternate, mostly taper-pointed, oblique cordate or truncate at the base, serrate; flowers in axillary or terminal cymes, white or yellow, fragrant, peduncles of the cymes with a leaf-like bract adhering to about half their length; fruit nut-like, woody, 1-celled.

Leaves smooth or nearly so beneath..... 1 *T. americana*.

Leaves densely white or gray pubescent beneath..... 2 *T. heterophylla*.

1. *Tilia americana* Linnæus. LINN. BASSWOOD. LINDEN. Plate 116. Bark of old trees deeply furrowed, dark gray brown; twigs at the end of the season gray, brown or reddish-brown, when chewed somewhat mucilaginous; buds ovoid, pointed, dark reddish-brown; leaves ovate to orbicular, long-pointed or sometimes rounded at the apex, dark green above, a lighter green beneath, leaf blades 5-15 cm. (2-6 inches) long, smooth above and beneath at maturity, or with scattered hairs and tufts of brown hairs in the axils of the veins beneath, sharply toothed, the teeth ending in a gland; petioles $\frac{1}{3}$ to $\frac{1}{2}$ as long as the blades; flowers appear when the leaves are almost mature, June or July; bracts of the peduncles very variable, adhering to the peduncle for about half their length, about 8 cm. (3 inches) long and 1-3 cm. ($\frac{3}{8}$ -1 inch) wide, rounded at the apex, wedge-shaped or rounded at the base, smooth above and below; fruit woolly, globose, about 6 mm. ($\frac{1}{4}$ inch) in diameter.

Distribution. New Brunswick west to Manitoba and south to Georgia and Texas. More or less frequent to common in rich soil

PLATE 116.

*TILIA AMERICANA* Linnaeus. LINN OR BASSWOOD. (x $\frac{1}{2}$.)

in all parts of Indiana. It is usually a large and tall tree and is found associated with beech, sugar maple, white ash and red elm.

The published records of the distribution are as follows: Carroll (Thompson); Clark (Baird and Taylor) and (Smith); Daviess (Clements); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Young); Knox (Thomas); Kosciusko (Clark); Marion (Wilson); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wayne (Petry and Markle).

Additional records are: Montgomery (Evans); Putnam (Grimes); Tippecanoe (Coulter) and (Dorner); Clark, Decatur, Delaware, Floyd, Fulton, Hamilton, Hancock, Knox, Laporte, Montgomery, Morgan, Noble, Owen, Parke, Porter, Posey, Starke, Warren and Wells (Deam).

Economic uses. Wood soft, light, straight and close-grained, light brown, easily worked. The principal uses are for lumber, heading and excelsior. The supply of the wood in this State is almost exhausted because of its use for special purposes for which no satisfactory substitute for it has been found. The inner bark is very tough, and was commonly used by the pioneers for tying the shocks of corn.

Horticultural value. Adapted to a moist rich soil and grows rapidly; transplants fairly well, numerous and vigorous shoots appear from the stumps; flowers contain a nectar from which bees make the choicest honey; frequently planted as a shade tree and for ornamental purposes. It has not been tried for forestry purposes in Indiana, although it reaches its greatest development in our area. Since it is certain that there will be a demand in the future for this wood, it is evident that its culture is worthy a trial.

2. *Tilia heterophylla* Ventenat. LINN. Plate 117. Bark, twigs and buds similar to the preceding species; leaves usually larger, a dark yellow-green above, densely white or gray pubescent beneath, leaf stalks $1/3$ to $1/2$ the length of the blade; bracts on the peduncles usually hairy above similar to the under surface of the leaves; flowers appear in June or July.

Distribution. New York south along the mountains to Alabama, west to southern Indiana and Illinois, and central Tennessee. In Indiana it is found in a few counties adjacent to the Ohio River. Dr. Schneck says he noted one tree near the mouth of White River.

PLATE 117.



TILIA HETEROPHYLLA Ventenat. WHITE BASSWOOD. (x $\frac{1}{2}$.)

In the vicinity of Madison it was the only species of *Tilia* noted. It is said to occur as far north as Vernon in Jennings County.

The published records of the distribution are as follows: Clark (Baird and Taylor); Delaware (Phinney)*; Gibson (Schneck); Jefferson (J. M. Coulter).

Additional records are: Clark, Dearborn and Jefferson (Deam).

CORNACEÆ. THE DOGWOOD FAMILY.

Trees or shrubs, leaves alternate, opposite or whorled; fruit mostly a drupe, 1 or 2 seeded.

Leaves alternate; flowers of two kinds, the staminate in heads, 5-parted; stigmas lateral..... 1 *Nyssa*.

Leaves mostly opposite; fl wers perfect, 4-parted, stigmas terminal.

Flowers in open cymes, not subtended by a large involucre..... 2 *Cornus*.

Flowers in heads subtended by a large involucre..... 3 *Cynoxylon*.

1. NYSSA. THE TUPELOS.

1. *Nyssa sylvatica* Marshall. GUM. BLACK GUM. SOUR GUM. PEPPERIDGE. Plate 118. Bark of old trees thick, deeply and irregularly furrowed, from a light to a very dark brown, branches smooth and brown; twigs slender; winter buds obtuse about 5 mm. ($\frac{1}{4}$ inch) long, leaves entire or sometimes angular toothed, oval obovate or oblong, 5-12 cm. (2-5 inches) long, more or less acute at the apex, wedge-shaped or rounded at the base, hairy when expanding, glabrous and shiny at maturity, or with some pubescence beneath along the veins, a glossy dark green above; flowers appear with the leaves in April or May, small greenish-white, the pistillate and staminate usually on different trees, the pistillate 2-8 or solitary, the staminate numerous; fruit a fleshy drupe, ovoid, blue-black, sour and astringent, ripens in September and October, usually in clusters of 3; stone generally cylindric with 10-12 indistinct ribs.

Distribution. Maine and central Michigan south to the Gulf States and west to Texas. It is well distributed in Indiana. Not frequent in the northern counties, rare in the central part and frequent in the southern half of the State. In the northern part of the State it is found associated with the swamp white and burr oaks. In the southern part of the State it is frequently found in

*Reported by Phinney as occurring in central-eastern Indiana. Reference to Phinney's botany, which is now in the Indianapolis Public Library, in which he kept a record of the plants noted by marking them with an X, shows this species was not marked, so this reference should be dropped.

PLATE 118.

NYSSA SYLVATICA Marshall. BLACK GUM. (X $\frac{1}{2}$.)

drier situations and is generally associated with white oak, red oak and sweet gum. In our area it is usually a tall medium sized tree, although it sometimes attains a circumference of 5 m. (16 feet).

The published records of the distribution are as follows: Clark (Smith); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fayette (Hessler); Franklin (Meyneke); Gibson (Schneck); Hamilton (Doane); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Kosciusko (Clark) and (Youse); Lake (Babcock) and (Blatchley); Marshall (Scovell); Monroe (Blatchley); Noble (Van Gorder); Parke (Hobbs); Porter (Blatchley); Posey (Schneck); Putnam (MacDougal); Steuben (Bradner); Vigo (Blatchley).

Additional records are: Monroe (Mottier); Putnam (Grimes); Tippecanoe (Coulter); Allen, Brown, Clark, Crawford, Decatur, Gibson, Harrison, Johnson, Laporte, Marshall, Montgomery, Porter, Posey, Steuben (Deam).

Economic uses. Wood heavy, soft, rough, sap wood yellowish, heart wood light brown, difficult to split. Used principally for building material, heading, boxes and by the pioneers for ox-yokes.

2. CÔRNUS. THE CORNELS.

Cornus alternifolia Linnæus. DOGWOOD. SWAMP DOGWOOD. Plate 119. Bark gray to dark brown, sometimes the bark of small trees is a glossy yellow green, smooth, warty, or with shallow fissures; twigs at the end of the season green, tinged with brown; buds brown, small and acute; leaves clustered at the ends of the branches, oval or ovate, taper-pointed, narrow or rounded at the base, 6-10 cm. ($2\frac{1}{2}$ -4 inches) long, margin mostly entire with a few shallow indentations, bright green above, paler beneath, both surfaces hairy when expanding, at maturity the upper side is usually smooth and the lower whitish with appressed hairs; flowers appear in May, in cymes about 5 cm. (2 inches) broad on shoots of the season, cream color, about 3 mm. ($\frac{1}{8}$ inch) long; fruit dark blue-black, sub-globose, about 8 mm. ($\frac{1}{3}$ inch) in diameter; stone obovoid, pointed at the base, longitudinally many grooved.

Distribution. Eastern Quebec west to northern Minnesota and south to northern Alabama and Georgia. Throughout Indiana in wet woods and along the borders of streams and lakes. Its distribution has not been determined, although it is believed to be rather rare; favorable conditions for its growth appear to be local. It is found along the Tippecanoe River in Fulton County and asso-

PLATE 119.

CORNUS ALTERNIFOLIA Linnaeus. SWAMP DOGWOOD. (x $\frac{1}{2}$.)

ciated with the white elm and black willow. In our area it rarely attains tree size and is of no economic importance.

The published records of the distribution are as follows: Clark (Baird and Taylor); Delaware, Jay, Randolph and Wayne (Phinney); Fayette (Hessler); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jefferson (Barnes) and (Coulter); Kosciusko (Clark); Marion (Douglas); Monroe (Blatchley); Posey (Schneck); Steuben (Bradner); St. Joseph (Rothert); Tippecanoe (Cunningham); Vigo (Blatchley).

Additional records are: Montgomery (Evans); Putnam (Grimes), (MacDougal) and (Wilson); Fulton, Hamilton, Johnson, Laporte, Monroe, Montgomery, Porter, Washington and Wells (Deam).

3. CYNÔXYLON. THE DOGWOODS.

(From the Greek, *cynos*, dog and *zylon*, wood).

Cynoxylon floridum (Linnæus) Rafinesque. DOGWOOD. FLOWERING DOGWOOD. (*Cornus florida* Linnæus). Plate 120. Bark of old trees reddish-brown, usually deeply fissured and divided into short oblong scales; twigs slender, round, turning up at the ends; terminal winter buds oblong, covered with two opposite scales, flowering buds sub-globose, grayish, covered with 4 scales which later develop into the flowering bracts; leaves ovate to elliptic, 5-14 cm. (2-5½ inches) long and 3-7 cm. (1¼-2¾ inches) wide, taper-pointed at the apex, narrowed or rounded at the base, margin entire or with a few shallow indentations, more or less hairy both above and below, bright green above, lighter or whitish beneath, turning scarlet in autumn; flowering heads surrounded by an involucre of 4 large white or pinkish bracts, the mature bracts obovate, 3-6 cm. (1¼-2½ inches) long, notched and thicker at the apex, the apex is a grayish brown, being the part that encloses the flower buds; flowers small, greenish, appearing in April or May; fruit ripens in September and October, scarlet red, the ovoid drupe about 1 cm. (¾ inch) long with a thin acrid pulp and a large elliptic stone; stone pointed at both ends.

Distribution. Southern Maine, Ontario and southern Minnesota south to Florida and west to Texas. In Indiana it is frequent in all parts of the State that are favorable to its growth. It prefers a moist rich soil and is usually associated with beech, sugar maple and white oak. It is a small tree with a short trunk, usually about 7 m. (23 feet) high with a diameter of about 13 cm. (5 inches).

The published records of the distribution are as follows: Clark (Baird and Taylor) and (Smith); Daviess (Clements); Dearborn

PLATE 120.

CYNXYLON FLORIDUM (Linnæus) Rafinesque. Dogwood. ($\times \frac{1}{2}$.)

(Collins); Delaware (Phinney); Fountain (Brown); Franklin (Meyncke); Gibson (Schneck); Jay (M'Caslin); Jefferson (Coulter); Knox (Ridgway); Kosciusko (Clark) and (Scott); Lake (Higley and Radden); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Wayne (Petty and Markle).

Additional records are: Monroe (Blatchley); Montgomery (Evans); Posey (MacDougal and Wright); Putnam (Cook), (Grimes) and (Lewis and Bridges); Tippecanoe (Coulter) and (Dorner); Blackford, Clark, Decatur, Delaware, Harrison, Huntington, Jackson, Madison, Marion, Morgan, Parke, Putnam, Ripley, Scott, Steuben, Shelby, Wells (Deam).

Economic uses. Wood heavy, hard, tough, strong, close-grained, brown, takes a high polish. It was used by the pioneers for wedges, mallets, handles for tools and for fuel. No place was found in Indiana where it is now bought for commercial purposes. The bark of the root is used in medicine and the fruit is freely eaten by some species of birds.

Horticultural value. It is adapted to a moist rich soil; is not easily transplanted; crown depressed hemispheric. In flower it is the most showy of our native trees and for this reason it is much desired for ornamental planting. Several horticultural varieties have been developed, but they are not as hardy as the type. It is used in the planting of borders and because it is shade enduring is well adapted for planting between large trees.

EBENACEÆ. THE EBONY FAMILY.

DIOSPYROS.

(From the Greek, *dios*, Jupiter, and *pyros*, fruit: meaning heavenly fruit).

Diospyros virginiana Linnæus. PERSIMMON. Plate 121. Bark dark reddish-brown to black, deeply and irregularly fissured; buds acute with lustrous purplish scales; leaves alternate, entire, oval, short pointed at apex, narrowed, rounded or cordate at the base, hairy when young, smooth at maturity, at least above, 8-16 cm. (3-6 inches) long and 5-8 cm. (2-3 inches) wide; flowers appear in May or June when the leaves are half grown, greenish yellow, the staminate on one tree and the pistillate on another; fruit depressed globose to oval in shape, 2-3 cm. ($3\frac{1}{4}$ -1 $\frac{1}{4}$ inches) in diameter, reddish-brown or yellow, matures late in the fall, flesh very astringent when immature, sweet when ripe. The fruit varies greatly in

PLATE 121.

DIOSPYROS VIRGINIANA Linnaeus. PERSIMMON. (X $\frac{1}{2}$.)

quality and shape and in the number of the seeds. From the fact that it is the favorite food of the opossum it is frequently called the "possum" fruit.

Distribution. Southern Connecticut west to southeastern Iowa and eastern Kansas, south to the Gulf. In Indiana it is confined principally to the southern part of the State, and is rarely found north of Indianapolis. Prof. Stanley Coulter reports three large trees growing in Tippecanoe County in situations such as to indicate that they are native. It is usually a small, sometimes a medium sized tree, 8-15 m. (25-50 feet) high. Generally found in dry soil in woods, fields and along fences. Frequently in the southern part of the State waste and old worn out fields become thickly covered with persimmon sprouts and in cultivated fields it is often a task for the farmer to subdue the persimmon and sassafras sprouts. In Posey County it is found on both high and low situations. In the Wabash bottoms it is found on the borders of swamps and one specimen was noted growing with *Cephalanthus* and *Saururus*, which was 2.5 dm. (10 inches) in diameter.

The published records of the distribution are as follows: Clark (Baird and Taylor) and (Smith); Floyd (Clapp); Franklin (Meyneke); Gibson (Schneck); Jefferson (Coulter) and (Young); Knox (Ridgway) and (Thomas); Marion (Douglas); Miami (Gorby); Monroe (Blatchley); vicinity of New Albany (Clapp); Orange (Troop); Posey (Schneck); Tippecanoe (Coulter); Vigo (Blatchley).

Additional records are: Posey (Wright); Putnam (Grimes); Clark, Dubois, Knox, Posey (Deam).

Economic uses. Wood heavy, hard, strong, fine-grained, takes a high polish; sap wood light brown, heart wood dark brown to nearly black in very old trees. The supply is so limited in this State as to be of no economic importance.

Horticultural value. While the tree is interesting and the flowers and foliage attractive, it can scarcely be recommended for ornamental planting on account of its slow growth. It is hardy in all parts of the State and since the fruit is relished by many people, the planting at least of horticultural varieties should be encouraged.

OLEACEÆ. THE OLIVE FAMILY.

Leaves compound; fruit dry, a samara.....	1 Fraxinus.
Leaves simple; fruit fleshy, a drupe.....	2 Forestiera.

1. **FRÁXINUS.** THE ASHES.

Trees with furrowed bark; opposite, compound leaves; flowers appear in April or May in clusters from the axils of the last year's leaves, the staminate and pistillate on different, or sometimes on the same tree; fruit a samara.

Bark of mature trees deeply fissured; fruit not winged to the base.

Wing of fruit rarely extending down on the body more than $\frac{1}{3}$ of its length; body of fruit robust, round and rather abruptly passing into the wing.

Shoots and main axis of the leaf smooth..... 1 *F. americana*.

Shoots and main axis of the leaf velvety pubescent... 2 *F. biltmoreana*.

Wing of fruit generally extending down on the body more than $\frac{1}{3}$ of its length; body of fruit flattened and gradually passing into the wing.

Body of samara less than 3 mm. ($\frac{1}{8}$ inch) in diameter just below the wing, usually 1.5-2 mm. ($\frac{1}{16}$ inch); generally 3-4.5 cm. ($1\frac{1}{4}$ - $1\frac{3}{4}$ inches) long.....

3 *F. pennsylvanica*.

Body of samara more than 3 mm. ($\frac{1}{8}$ inch) in diameter just below the wing, usually 4-5 mm. ($\frac{1}{4}$ inch); samara generally 4-6 cm. ($1\frac{3}{8}$ - $2\frac{3}{8}$ inches) long.....

4 *F. Michauxii*.

Bark of mature trees scaly or flaky; fruit winged to the base.

Ridges connecting leaf scars usually present; twigs usually 4-angled and more or less pubescent; buds gray; leaflets stalked.....

5 *F. quadrangulata*.

Ridges connecting leaf scars usually absent; twigs round and smooth; buds a very dark brown or black; leaflets sessile.....

6 *F. nigra*.

1. **Fraxinus americana** Linnæus. WHITE ASH. GRAY ASH.

Plate 122. Bark on the trunks of mature trees gray, deeply fissured, forming numerous diamond-shaped cavities, bark on the smaller branches smooth and grayish-green; the season's shoots at first green, becoming gray or light brown by the end of the season, smooth and often coated with a bloom; winter buds broadly ovate, obtuse, with 4 pairs of scales, appearing rusty-pubescent or reddish-brown; leaves 2-3 dm. (8-12 inches) long, main axis smooth, leaflets on stalks 0.3-2.5 cm. ($\frac{1}{8}$ -1 inch) long, the stalk of the terminal one 2-3 times as long, leaflets 5-9, usually 7, 5-13 cm. (2-5 inches) long, ovate to narrow-oblong, entire or somewhat toothed, the teeth rarely extending to the base, base rounded, acute or oblique, acute at the apex, usually long taper-pointed, sometimes short taper-pointed, deep green and smooth above, paler beneath, usually silvery, smooth or with hairs along the veins; calyx persisting on the fruit; fruit ripens in early fall, varies greatly on different trees in size and shape, the fruit of each tree is however quite uniform in

PLATE 122.



FRAXINUS AMERICANA Marshall. WHITE ASH. ($\times \frac{1}{2}$.)

size and shape, spatulate to linear, 3-5 cm. (1¼-2 inches) long, body round and plump, the wing somewhat wider and 2-3 times as long as the body.

Distribution. Nova Scotia, Ontario and Minnesota south to Florida. Frequent to common in all parts of Indiana. It is the most abundant in the northern two-thirds of the State, where it is associated with the hard maple, beech, linn and slippery elm. In several localities in southern Indiana it is called black ash to distinguish it from its associate, the blue ash, which has a whiter bark. In the hilly part of the State it is found principally near the water courses and rarely on the white and black oak ridges.

In the forest it is a tall straight tree, averaging 0.5-1 m. (19-39 inches) in diameter and 20-30 m. (65-100 feet) in height, with usually few side branches below the main branches of the crown.

The published records of the distribution are as follows: Cass (Benedict and Elrod); Clark (Baird and Taylor) and (Smith); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter); Kosciusko (Clark) and (Youse); Knox (Ridgway); Marion (Wilson); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Parke (Hobbs); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod); Wayne (Petty and Markle).

Additional records are: Knox (Schneck); Putnam (MacDougal); Tippecanoe (Coulter); Union (Rose); Brown, Clark, Decatur, Delaware, Floyd, Hamilton, Jefferson, Jennings, Laporte, Lawrence, Porter, Posey, Starke, Steuben, Vermillion, Warren, Washington and Wells (Deam).

Economic uses. Wood heavy, hard, strong, tough, close-grained, sap wood light, heart wood light brown. The wood of this tree is one of the most valuable of the Indiana hardwoods. It has numerous uses among which the following are the most important: Handle stock, street car stock, agricultural implements, heading for butter tubs, house finishing, furniture, boxes, crating and vehicle stock.

Horticultural value. Hardy, grows in nearly all kinds of soil, though it prefers a moist rich soil; transplants easily; grows rapidly; bears pruning well; erect in its habit of growth and easily trained to grow tall and straight. It is a desirable tree for street and landscape planting. The results of the cultivation of this species at the forest experimental station indicate that it is one of the best

for forest planting in Indiana. It grows rapidly, transplants successfully and is easily managed. It is propagated by planting the seed in the fall and transplanting the seedlings when they are 1 or 2 years old. If the trees are planted in rows they should be given from 16 to 64 square feet of space. Results indicate that when a pure planting is attempted the trees should be spaced 4x4 feet or 5x5 feet. The ash will do well either in a pure or mixed stand, provided the associated trees do not over-top it. It is light demanding, consequently natural pruning is effective.

2. *Fraxinus biltmoreana* Beadle. WHITE ASH. GRAY ASH. Bark and buds similar to those of the preceding; shoots velvety pubescent, remaining so during the season or becoming somewhat smooth, but never glabrous; leaves 2-3, 5 dm. (8-14 inches) long, main axis pubescent, leaflets on stalks 0.3-3 cm. ($\frac{1}{8}$ -1 $\frac{3}{4}$ inches) long, the terminal about twice as long; leaflets 5-11, generally 9, 5-13 cm. (2-5 inches) long, ovate to narrow oblong, usually entire, sometimes toothed, rounded, acute at the apex, dark green and smooth above, paler and pubescent beneath, at least with numerous hairs along the veins; fruit similar to that of the preceding.

Distribution. Pennsylvania and southern Indiana south to Georgia. In Indiana it occurs only in the southern half of the State. It is found in situations similar to those of the preceding species and under drier conditions. It is associated with *Fraxinus americana* and is equally abundant.

It has been found in the following counties: Brown, Clark, Jefferson, Jennings, Lawrence, Owen and Washington (Deam).

Economic uses. Similar to those of the preceding species.

3. *Fraxinus pennsylvanica* Marshall. WHITE ASH. GRAY ASH. BLACK ASH. Plate 123. Bark similar to that of the preceding species but with closer and more shallow furrows and darker in color; the year's shoots greenish-gray, smooth or hairy, generally smaller than those of the other species that occur in the State; buds smaller and blacker than those of the preceding species; leaves 2-3 dm. (8-12 inches) long, petioles smooth or pubescent; leaflets 5-9, usually 7, the lateral on stalks from 2-12 mm. ($\frac{1}{10}$ - $\frac{3}{5}$ inch) long, the stalk of the terminal 2 or 3 times as long, margins entire or serrate; acute or rounded at the base, generally long taper-pointed at the apex, yellow green on both sides or sometimes paler beneath, smooth or more or less pubescent beneath; flowers appear in April or May as the leaves unfold; fruit ripens early in the fall, 2.5-5 cm. (1-2 inches) long, linear to spatulate, the base sur-

PLATE 123.



FRAXINUS PENNSYLVANICA Marshall. RED OR GREEN ASH. ($\times \frac{1}{2}$.)

(Showing variation of fruit from different trees.) ($\times 1$.)

(Variation of leaflets indicated by secondary leaf margins.)

PLATE 124.



FRAXINUS MICHAUXII Britton. SWELL-BUTT ASH.

rounded by the persistent calyx, the end of the body gradually tapering into a wing which is 1-5 times as long as the body and which extends down along the body to the middle or below.

Distribution. New Brunswick, Southern Ontario and Nebraska south to Florida. In Indiana it is a medium sized tree, found more or less frequently in all parts of the State along water courses and on the borders of lakes and swamps. It is usually found in situations intermediate between those of *Fraxinus americana* and *Fraxinus nigra*. The bark of the trunk is usually darker than that of the preceding species and for this reason it is often called black ash. Books and nurserymen call this species green or red ash, but no millman or farmer was found who applied either of these names to any of the ashes of the State.

The published records of the distribution are as follows: Franklin (Meyncke); Gibson (Schneck); Knox (Ridgway); Lake (Higley and Radden); Posey (Schneck); Tippecanoe (Cunningham).

Additional records are: Knox (Schneck); Putnam (Grimes); Tippecanoe (Coulter); Bartholomew, Delaware, Gibson, Hancock, Hendricks, Jackson, Jefferson, Marion, Montgomery, Parke, Porter, Posey, Starke, Steuben, Vermillion, Warren and Wells (Deam).

Economic uses. Wood heavy, hard, rather strong, sap wood thick and of a light color, heart wood light brown. Commercially not separated from *Fraxinus americana*, which however, is a superior wood.

Horticultural value. It is hardy in our area, transplants easily, grows rapidly, and when grown in the open develops a wide spreading crown. If a medium sized ash tree is desired, this is the species that should be chosen.

4. *Fraxinus Michauxii* Britton. SWELL-BUTT ASH. CHURN-BUTT ASH. Plate 124. Bark rather deeply fissured, light or dark gray, similar in appearance to that of *Fraxinus pennsylvanica*; season's shoots densely velvety pubescent, remaining so during the season, becoming gray or brown by the end of the season; leaves 2-4 dm. (8-16 inches) long, main axis generally densely pubescent; stalks on the lateral leaflets 0.2-1.5 cm. ($1/16$ - $3/4$ inch) long, the terminal stalk 2-4 times as long as those of the upper pair of leaflets; leaflets 5-9, generally 7, frequently 9, ovate-lanceolate or oval-oblong, 7-15 cm. (3-6 inches) long, round or acute at the base, usually long taper-pointed at the apex, thick, margins entire or with a few small teeth, dark green and smooth above at maturity, paler and usually densely pubescent beneath; fruit ripens early in the fall a few weeks

before *Fraxinus pennsylvanica*; samara large, generally 4-6 cm. ($1\frac{5}{8}$ - $2\frac{3}{8}$ inches) long, frequently falcate, the wing generally 8-9 mm. ($\frac{1}{4}$ inch) wide in the middle, commonly obtuse and notched at the apex, body heavy, about $\frac{2}{3}$ as long as the wings.

Distribution. New York south to North Carolina and Louisiana and west to Missouri. In Indiana it is found in a few counties in the southwestern part of the State. It grows in swamps which are inundated for several months during the year. A characteristic of the tree is to develop a swelled base. An average sized tree measured as follows: 6 dm. (2 feet) above the ground, 36 dm. (141 inches) in circumference; 12.5 dm. ($4\frac{1}{2}$ feet) above the ground, 28 dm. (113 inches) in circumference; 18 dm. (6 feet) above the ground, the top of the swelled base 23.5 dm. (94 inches) in circumference.

There are no published records of the distribution of this species in Indiana. It has been taken in Gibson, Marion and Posey Counties by Deam. Although it has been known for years to be a member of our flora both by Dr. J. Schneck and Robert Ridgway, it has never been published. Dr. Schneck's specimens were labeled *Fraxinus profunda* Beadle. The specimen taken in Marion County was from a medium sized tree in moist soil along a roadside. In appearance it resembles *Fraxinus americana*. The existence of this tree in this locality is puzzling and additional study may show that the species has a wider range than indicated and that it may be found in drier situations than inundated swamps.

Economic uses. Similar to that of the white ash. Millmen who are acquainted with the tree say it is rarely ever hollow at the swelled base.

5. *Fraxinus quadrangulata* Michaux. BLUE ASH. Plate 125. Bark of mature trees light gray, separating in large thin plates, usually curling up at the side; shoots green, gradually turning gray, 4-angled, or vigorous shoots developing 4 wings about 2 mm. ($\frac{1}{16}$ inch) high, smooth; leaves 2-3 dm. (8-12 inches) long, petioles more or less pubescent, usually somewhat winged at the base, not deeply grooved; leaflets 7-11, ovate oblong to lanceolate, long taper-pointed at the apex, unequal at the base, rounded or wedge-shaped, margins usually with a few shallow teeth, sometimes sharply serrate or entire, the lateral leaflets on stalks 2-12 mm. ($\frac{1}{10}$ - $\frac{3}{5}$ inch) long, the terminal one on a stalk 2 or 3 times as long, hairy beneath when they unfold, smooth or somewhat hairy at maturity, glabrous above, yellow-green both above and below; flowers appear before

PLATE 125.

FRAXINUS QUADRANGULATA Michaux. BLUE ASH. ($\times \frac{1}{2}$.)

the leaves in April or May, perfect, that is there are stamens and pistils in the same flower, petals wanting, calyx in mature fruit obsolete or a mere ring; fruit maturing late in summer; linear-oblong, 2-4 cm. (1-2 inches) long, about 1 cm. ($\frac{1}{2}$ inch) wide, flat, winged all around, blunt and notched at the apex, as viewed from apex twisted to the right 20-40 degrees.

Distribution. Southern Ontario and Minnesota south to Tennessee, Alabama and Arkansas. In the northern part of Indiana it is rare to infrequent, becoming more frequent southward until the hills of southern Indiana are reached where it is more uniform in its distribution. In several localities in the southern part of the State it is known as "white" ash on account of the light color of the bark to distinguish it from the other species of the neighborhood, all of which have a darker colored bark. In these localities *Fraxinus nigra* is not found. Where the sugar maple and beech are the prevailing species it is commonly quite frequent. Throughout its distribution it is found in dry well drained soil and its constant associate is the sugar maple. Usually a medium sized tree in both diameter and height, occasionally a tree of large diameter. Frequently the bark of the mature trees of the hard maple and blue ash very much resemble each other in color and exfoliation.

The published records of the distribution are as follows: Cass (Benedict and Elrod); Clark (Baird and Taylor); Dearborn (Collins); Delaware (Phinney); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Haymond) and (Meynecke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter); Knox (Ridgway); Marion (Wilson); Miami (Gorby); vicinity of New Albany (Clapp); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod); Wayne (Petty and Markle).

Additional records are: Putnam (Grimes); Tippecanoe (Coulter); Dearborn, Delaware, Harrison, Jefferson, Montgomery and Wells (Deam).

Economic uses. Wood heavy, hard, close-grained and rather brittle. Commercially it is usually graded as white ash. It was a favorite wood with the pioneers for making the puncheons of their log cabins.

6. *Fraxinus nigra* Marshall. WATER ASH. SWAMP ASH. BLACK ASH. HOOP ASH. Plate 126. Bark light gray, fissures short and shallow, separating in short thin scales; small branches light gray, rather tough; the season's shoots at first olive green, becoming smooth and gray; leaf-scars shield shape, ridges connecting them

PLATE 126.



FRAXINUS NIGRA Marshall. WATER OR BLACK ASH. (x 4.)

usually absent, plane of leaf-scar usually parallel to the branch; winter buds robust, about 5 mm. ($\frac{1}{4}$ inch) long, broadly ovate, roundish pointed, with 3 pairs of scales, velvety black; leaves 3-4 dm. (12-16 inches) long, petioles smooth and grooved, leaflets 7-13 usually 9, variable in outline, 6-10 cm. ($2\frac{1}{2}$ -4 inches) long and 3-4 cm. ($1\frac{1}{4}$ - $1\frac{3}{4}$ inches) wide, wedge-shaped at the base, sometimes rounded, taper-pointed, sharply serrate, lateral leaflets sessile, the terminal one stalked, dark green above, paler beneath, glabrous on both sides at maturity except a few clusters of brown hairs in the axils of the veins beneath; flowers appear before the leaves in April or May, calyx and petals wanting; fruit ripens late in the summer, linear-oblong, broadest above the middle, 2-3 cm. ($\frac{3}{4}$ - $1\frac{1}{4}$ inches) long, round at both ends, flat or slightly twisted.

Distribution. Newfoundland and Manitoba south to Virginia, southern Illinois and Arkansas. Found in most parts of Indiana. Infrequent to rare in the extreme southern part, and it is doubted if it occurs at all in a few of the southeastern counties. It is more or less frequent in all of the northern counties in wet woods, on the borders of swamps, lakes and streams. It is usually associated with the water elm, burr and swamp white oaks, soft maples, linn, cottonwood, aspens and tamarack. In some of the wet woods of the northern part of the State it sometimes composes one-third to one-half of the stand. It is a medium sized tree, growing very tall and straight. Usually about 3-4 dm. (12-16 inches) in diameter and 20-25 m. (60-80 feet) in height.

The published records of the distribution are as follows: Cass (Benedict and Elrod); Clark (Baird and Taylor); Delaware, Jay, Randolph and Wayne (Phinney); Fountain (Brown); Franklin (Meyneke); Gibson (Schneck); Hamilton (Wilson); Jay (M'Caslin); Jefferson (Coulter); Knox (Ridgway); Marion (Wilson); Miami (Gorby); Noble (Van Gorder); Parke (Hobbs); Posey (Schneck); Steuben (Bradner); Vigo (Blatchley); Wabash (Benedict and Elrod).

Additional records are: Putnam (Grimes); Tippecanoe (Coulter); Union (Rose); Blackford, Delaware, Knox, Madison, Porter, Steuben and Wells (Deam).

Economic uses. Wood heavy, rather soft, coarse-grained, not strong, sap wood light, heart wood brown, very brash if grown where it is wet, rather tough if grown in drier situations. Readily separating into thin layers if pounded, hence its use in the manufacture of hoops and baskets. Used for fuel, and by the pioneers for rails and pieces from the buttressed bases for hames.

2. FORESTIÈRA.

Forestiera acuminàta (Michaux) Poiret. POND BRUSH. CROOKED BRUSH. Plate 127. Bark on small trees smooth, becoming rough or fissured on larger trees, the ridges short and broken, light to dark gray; branches slender, numerous and somewhat spiny; winter buds ovoid, smooth or sometimes a few of the scales with ciliate margins, much lighter in color than the twigs; leaves ovate to elliptic-ovate, 3-9 cm. ($1\frac{1}{4}$ - $3\frac{1}{2}$ inches) long, long taper-pointed at the apex, generally about as long pointed at the base, leaves on vigorous shoots the largest and with a shorter tapering base, margins with shallow rounded teeth to below the middle, rarely entire, a light green and smooth both above and beneath; petioles about 1 cm. ($\frac{3}{8}$ inch) long; flowers appear in March or April before the leaves, the staminate in small sessile clusters along the small branches, the pistillate in short panicles; fruit a dark purple drupe, oblong, about 15 mm. ($\frac{1}{2}$ inch) long; stone with many longitudinal ribs.

Distribution. Southwestern Indiana and southern Illinois south to Georgia and Texas. In Indiana it occurs only in a few counties in the southwestern part of the State where it is found in swamps, borders of ponds and low river banks. It is very tolerant of shade and is frequently found growing in a thick stand of tall trees. It is generally associated with *Cephalanthus* (Button Bush), *Taxodium* (Cypress), *Salix nigra* (Willow), *Betula nigra* (Birch), *Populus heterophylla* (Cottonwood) and *Fraxinus Michauxii* (Swell-butt Ash). In our area it is usually shrub-like and in some places it forms almost impenetrable thickets. It sometimes reaches a height of 8 m. (25 feet) and a diameter of 1.5 dm. (6 inches). The common name given in books for this species is "swamp privet" but no one was found who knew it by that name. In Gibson and Posey Counties it is commonly called "pond brush" and "crooked brush".

The published records of the distribution are as follows: Gibson and Posey (Schneck); Knox (Ridgway).

Additional records are: Gibson and Posey (Deam).

Economic uses. Too small and the supply too limited to be of any economic value.

BIGNONIACEÆ. THE TRUMPET CREEPER FAMILY.

CATÁLPA. THE CATALPAS.

Leaves simple, opposite or whorled, with long petioles; flowers in terminal panicles or corymbs; fruit a long round pod which splits into halves; seeds many, flat, papery, with a tuft of long hairs at each

PLATE 127.



FORESTIERA ACUMINATA (Michaux) Poirét. SWAMP PRIVET. ($\times \frac{1}{2}$.)

end. The word catalpa is of Indian origin, and the meaning of the word, doubtful. The genus is composed of seven species of trees and shrubs, native to North America and Asia.

- Bark of old trees separating in thin flat scales; flowers numerous in dense panicles; flowers about 3 cm. ($1\frac{1}{4}$ inches) wide; calyx glabrous; lower lobe of corolla entire..... 1 *Catalpa Catalpa*.
- Bark of old trees deeply fissured, not scaly; flowers in loose panicles; flowers about 5 cm. (2 inches) wide; calyx usually pubescent; lower lobe of corolla notched at the apex..... 2 *Catalpa speciosa*.

1. *Catalpa Catálpa* (Linnæus) Karsten. CATALPA. (*Catalpa bignonioides* Walter). Plate 128. Bark of old trees grayish-brown, flaky, separating in thin scales, 6-8 mm. ($\frac{1}{4}$ inch) thick; leaves broadly ovate or narrower, cordate at the base, taper-pointed, entire, or with 1 or 2 lateral lobes, blades 15 cm. (6 inches) long and 12 cm. (5 inches) wide, at maturity light green and smooth above, paler and hairy beneath, fetid when bruised; flowering period May or June; flowers white, marked on the lower inner surface by 2 rows of yellow blotches, the lower lobes marked with purple spots, the lower lobe entire or nearly so, the upper lobe about half enclosing the other lobes when expanding; tube of flower bell-shaped, wide as long; fruit chestnut brown, grooves of pod shallow or usually wanting, 1.5-3.5 dm. (6-14 inches) long, usually about 8 mm. ($\frac{1}{3}$ inch) thick, walls of pod thin, becoming flat after opening, each panicle of flowers usually maturing 4-10 pods; seeds 1.5-2.5 cm. ($\frac{3}{4}$ - $1\frac{1}{4}$ inches) long and about 5 or 6 mm. ($\frac{1}{4}$ inch) wide, silvery gray, with the tuft of hairs on the end of the seed coming to a point, and longer than the body of the seed.

Distribution. Supposed to be native to parts of Florida, Georgia, Alabama, and Mississippi. It has been introduced and naturalized throughout the whole of the eastern United States. In Indiana it has been used for years as an ornamental and shade tree, although in fact, it has few qualities to recommend it. In some of the parks where it has been planted it is being removed because the mature pods make such a litter when they fall.

2. *Catalpa speciõsa* Warder. CATALPA. HARDY CATALPA. CATALPA. Plate 129. Bark of old trees grayish-brown, furrowed, at last slightly flaky; leaves broadly to oblong-ovate, 1-3 dm. (4-12 inches) long, heart-shaped at the base, long taper-pointed, entire or with 1 or 2 lateral lobes, at maturity dark green and smooth above, lighter and hairy beneath, not ill-scented when bruised, with clusters of dark glands in the axils of the veins beneath; flow-

PLATE 128.



CATALPA CATALPA (Linnæus) Karsten. CATALPA. ($\times \frac{1}{2}$.)

PLATE 129.

CATALPA SPECTIOSA Warder. CATALPA. (x $\frac{1}{2}$.)

ers appear in May or June about 2 weeks later than the preceding species, white, inconspicuously spotted with yellow and purple, lower lobe notched, the upper lobe enclosing the other lobes when expanding, tube of flower conical, longer than wide; fruit dark brown, strongly grooved, 2-5 dm. (8-20 inches) long, and about 1.5 cm. ($\frac{3}{4}$ inch) thick, usually 1 or 2 and seldom as many as 3 pods of the panicle maturing, walls of the pod thick, the valves remaining semi-terete after separating; seeds light brown, 2-3 cm. ($\frac{3}{4}$ -1 inch) long, and about 1 cm. ($\frac{3}{8}$ inch) wide, with a fringe of light brown and parallel hairs at each end nearly as long as the body.

It is now known that the several species of *catalpa* freely hybridize and it is difficult to obtain pure strains of either species. It appears to be almost impossible, or at least with a great risk of being mistaken, to separate this species from the preceding when they are very young. Mature trees are frequently difficult to distinguish because there are so many hybrids. Sometimes trees that have the appearance of *speciosa* will have the flowers or seed of *Catalpa Catalpa*. Mr. E. S. Antisdale in the Botanical Gazette, Vol. 8, page 171, says, "the stigmas of *Catalpa speciosa* close in a few seconds after being irritated." Thos. Meehan in the Botanical Gazette, Vol. 8, page 191, says, "it takes about 45 seconds for the stigmas of *Catalpa Catalpa* to close after being irritated."

Distribution. Found in the valley of the lower Wabash, along the valley of the Ohio River through Illinois, in the southeastern part of Missouri and the northeastern part of Arkansas. In Indiana it was found along the valley of the Ohio River as far east as Rockport and in the valley of the Wabash as far north as Vigo County. The mass of its distribution was west of a line connecting Terre Haute and Rockport. An old pioneer living near Austin, Scott County, said it was native in the Muscatatuck bottoms. This citation has not been verified. Another pioneer said it was native along the Ohio River as far up as New Albany. It was rather frequent in low, well drained soil near streams but has now become very scarce.

In the original forest it was a medium sized tree, usually about 5-7 dm. (20-28 inches) in diameter and 15-25 m. (49-81 feet) high. In the forest conditions it grew tall and straight, although it can scarcely be said of it that it grows as straight and as tall as other trees of equal size. Information obtained from the pioneers who were familiar with the original forests, say that the tree was only medium sized and seldom made more than 3 or 4 post lengths below the branches; that the lower branches did not shade off early and that the trees would seldom make good saw timber on account

of the many knots. Some persons who are interested in selling catalpa trees have exaggerated the tendency of the catalpa to grow tall and straight. The catalpa does not form a terminal bud and each year's growth is marked by a more or less visible crook.

The published records of the distribution are as follows: Delaware, Jay, Randolph and Wayne* (Phinney); Gibson (Schneck); Knox (Ridgway); Posey (Schneck); Tippecanoe* (Coulter); Vigo (Blatchley).

Additional records are: Gibson, Knox and Posey (Deam).

Economic uses. Fence posts, poles and crossties. It is believed that the average life of a forest grown split catalpa post is from 15 to 25 years. That the life of a round post that has been grown in the open and has large annual rings will not average more than 10-15 years. The lasting qualities of the catalpa post have been exaggerated. In the vicinity where the catalpa was indigenous it was used extensively for post purposes, not entirely on account of its lasting qualities, but because it worked easily and was not valuable for other purposes.

Horticultural value. The catalpa transplants easily, grows rapidly, is adapted to a well drained loam soil, forms a rather narrow and open crown, leaf period begins late and lasts until killing frosts. It has been rather extensively used for ornamental and shade tree purposes on account of its large green leaves and large panicles of flowers. The objections to this tree are the litter the fruiting pods make, and the danger of being defoliated by the catalpa sphinx.

It has been recommended and extensively used for forest planting. It has also been recommended for reinforcing the wood lot, that is to plant between other trees to thicken up the stand. The catalpa is not shade enduring and when planted in the woods among other trees it is usually suppressed.

It is adapted to a rich, moist and well drained loam soil. When planted on clay or gravelly soil it grows very slowly. In forest planting if a pure stand is desired the trees should be planted 5x5 to 8x8 feet depending upon the quality of the soil, and how quickly it is desired to mature the crop. If the trees are planted close together they will not grow so rapidly. It should be borne in mind that the lasting qualities of the timber is increased by slow growth.

In forest planting seedlings 12-18 inches long are the most desirable size to use. The best results are obtained by cultivating and undercropping with corn for the first year or two. Deep cultivation should not be attempted because the catalpa is a surface

*From cultivated trees.

rooting tree, and cultivation should cease when it would be a damage to the root system.

The catalpa sphinx has appeared in many of the catalpa plantings in the southern part of the State and the trees are twice defoliated each year, and as a consequence the trees make but little growth.

In forest planting in Indiana where the locust can not be grown successfully it appears that the catalpa is the most suitable tree to plant as a temporary tree between trees that are intended for a permanent stand.

The last year's growth of the catalpa in our area is frequently winter killed until the tree becomes 4-6 years old. During mild winters the ends only of the shoots may be killed, while during severe winters young trees may be killed back to the ground. In case only the end of the shoots are killed it is advised to wait until the buds begin to swell and then cut it back to a strong bud. If the tree is killed back to, or near the ground, cut it off about an inch above the ground.

CAPRIFOLIACEÆ. THE HONEYSUCKLE FAMILY.

VIBURNUM. THE VIBURNUMS.

(From the Latin, meaning the wayfaring).

Trees or shrubs with opposite, simple, entire, toothed or lobed leaves; flowers in the axils or in terminal cymes; fruit a drupe with one flat, oval stone.

Leaf-blades drawn to a long point, petioles winged..... 1 V. Lentago.

Leaf-blades merely acute or obtuse, petioles usually wing-

less..... 2 V. prunifolium.

1. Viburnum Lentago Linnæus. SHEEPBERRY. BLACK HAW. Plate 130. Bark of old trees reddish-brown, broken into thick plates; leaves varying from narrow-ovate to broadly oval, 3-9 cm. (1-3½ inches) long, apex sharply pointed, base wedge-shaped or rounded, sharply serrate with incurved teeth, smooth above and below, sometimes a few hairs along the veins below, lower surface with brown resinous dots; flowers appear in May or June, when the leaves are almost full grown; fruit bluish-black, covered with a bloom, oval, about 10 mm. (¾ inch) long.

Distribution. Quebec to Manitoba, south to Georgia and Kansas. Infrequent, in rich soil in all parts of Indiana, usually near lake or streams. Usually a shrub, sometimes attaining a diameter of 1 dm. (4 inches) and a height of 5-6 m. (16-19 feet).

PLATE 130:



VIBURNUM LENTAGO Linnaeus. SHEEPBERRY. (x $\frac{1}{2}$.)

Specific Gravity of Indiana Woods.*

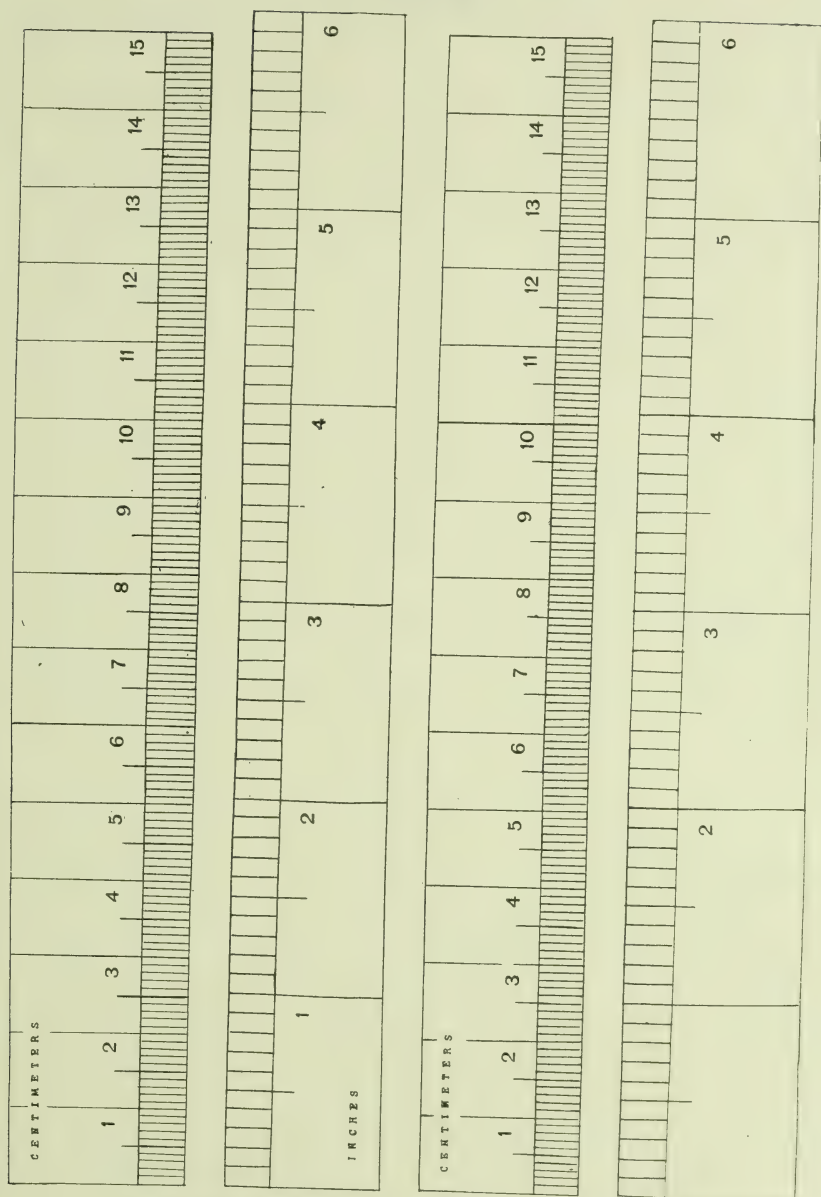
The specific gravity was derived from wood dried at 100° centigrade (212 Fah.) until it ceased to lose weight.

<i>Hicoria ovata</i> (Shellbark Hickory).....	0.8372
<i>Quercus stellata</i> (Post Oak).....	0.8367
<i>Viburnum prunifolium</i> (Black Haw).....	0.8332
<i>Quercus lyrata</i> (Overcup Oak).....	0.8313
<i>Ostrya virginiana</i> (Ironwood).....	0.8264
<i>Hicoria alba</i> (White Hickory).....	0.8218
<i>Hicoria glabra</i> (Black Hickory).....	0.8217
<i>Cynoxylon floridum</i> (Flowering Dogwood).....	0.8153
<i>Hicoria laciniosa</i> (Big Shellbark Hickory).....	0.8108
<i>Quercus Michauxii</i> (Cow Oak).....	0.8039
<i>Diospyros virginiana</i> (Persimmon).....	0.7908
<i>Amelanchier canadensis</i> (June-berry).....	0.7838
<i>Toxylon pomiferum</i> (Osage Orange).....	0.7736
<i>Quercus bicolor</i> (Swamp White Oak).....	0.7662
<i>Hicoria cordiformis</i> (Pig Hickory).....	0.7552
<i>Quercus imbricaria</i> (Shingle Oak).....	0.7529
<i>Quercus Prinus</i> (Chestnut Oak).....	0.7499
<i>Ulmus alata</i> (Cork Elm).....	0.7491
<i>Quercus alba</i> (White Oak).....	0.7470
<i>Quercus macrocarpa</i> (Burr Oak).....	0.7453
<i>Ilex decidua</i> (Holly).....	0.7420
<i>Quercus coccinea</i> (Scarlet Oak).....	0.7405
<i>Gleditsia aquatica</i> (Water Honey Locust).....	0.7342
<i>Robinia Pseudo-Acacia</i> (Black Locust).....	0.7333
<i>Quercus marylandica</i> (Black Jack Oak).....	0.7324
<i>Viburnum Lentago</i> (Sheepberry).....	0.7303
<i>Celtis occidentalis</i> (Hackberry).....	0.7287
<i>Carpinus caroliniana</i> (Water Beech).....	0.7286
<i>Ulmus Thomasi</i> (Hickory Elm).....	0.7263
<i>Prunus americana</i> (Wild Plum).....	0.7215
<i>Fraxinus quadrangulata</i> (Blue Ash).....	0.7184
<i>Hicoria Pecan</i>	0.7180
<i>Malus coronaria</i> (Crab Apple).....	0.7048
<i>Quercus velutina</i> (Black Oak).....	0.7045
<i>Ulmus fulva</i> (Slippery Elm).....	0.6956
<i>Quercus palustris</i> (Pin Oak).....	0.6938
<i>Gymnocladus dioica</i> (Coffeenut).....	0.6934
<i>Quercus falcata</i> (Spanish Oak).....	0.6928
<i>Acer nigrum</i> (Black Maple).....	0.6915
<i>Acer saccharum</i> (Sugar Maple).....	0.6912
<i>Fagus grandifolia</i> (Beech).....	0.6883

*Adapted from Sargent's "Trees of North America".

<i>Gleditsia triacanthos</i> (Honey Locust).....	0.6740
<i>Cornus alternifolia</i> (Swamp Dogwood).....	0.6696
<i>Betula lutea</i> (Yellow Birch).....	0.6553
<i>Fraxinus americana</i> (White Ash).....	0.6543
<i>Quercus rubra</i> (Red Oak).....	0.6540
<i>Ulmus americana</i> (White Elm).....	0.6506
<i>Cercis canadensis</i> (Redbud).....	0.6363
<i>Nyssa sylvatica</i> (Black Gum).....	0.6356
<i>Forestiera acuminata</i> (Swamp Privet).....	0.6345
<i>Fraxinus nigra</i> (Water Ash).....	0.6318
<i>Fraxinus pennsylvanica</i> (Red Ash).....	0.6251
<i>Larix laricina</i> (Tamarack).....	0.6236
<i>Acer rubrum</i> (Red Maple).....	0.6178
<i>Juglans nigra</i> (Black Walnut).....	0.6115
<i>Betula papyrifera</i> (Paper Birch).....	0.5955
<i>Liquidambar styraciflua</i> (Sweet Gum).....	0.5909
<i>Morus rubra</i> (Red Mulberry).....	0.5898
<i>Padus serotina</i> (Black Wild Cherry).....	0.5822
<i>Betula nigra</i> (River Birch).....	0.5762
<i>Betula populifolia</i> (White Birch).....	0.5760
<i>Platanus occidentalis</i> (Sycamore).....	0.5678
<i>Pinus virginiana</i> (Jersey Pine).....	0.5309
<i>Acer saccharinum</i> (Silverleaf Maple).....	0.5259
<i>Sassafras Sassafras</i> (Sassafras).....	0.5042
<i>Prunus pennsylvanica</i> (Wild Red Cherry).....	0.5023
<i>Juniperus virginiana</i> (Red Cedar).....	0.4926
<i>Pinus Banksiana</i> (Gray Pine).....	0.4761
<i>Magnolia acuminata</i> (Cucumber Tree).....	0.4690
<i>Alnus rugosa</i> (Alder).....	0.4666
<i>Populus grandidentata</i> (Quaking Asp).....	0.4632
<i>Alnus incana</i> (Tag Alder).....	0.4607
<i>Taxodium distichum</i> (Cypress).....	0.4543
<i>Æsculus glabra</i> (Buckeye).....	0.4512
<i>Tilia americana</i> (Linn).....	0.4525
<i>Castanea dentata</i> (Chestnut).....	0.4504
<i>Salix amygdaloides</i> (Willow).....	0.4502
<i>Catalpa Catalpa</i> (Catalpa).....	0.4474
<i>Salix nigra</i> (Black Willow).....	0.4456
<i>Acer Negundo</i> (Box Elder).....	0.4328
<i>Æsculus octandra</i> (Sweet Buckeye).....	0.4274
<i>Tilia heterophylla</i> (White Linn).....	0.4253
<i>Tsuga canadensis</i> (Hemlock).....	0.4239
<i>Liriodendron Tulipifera</i> (Yellow Poplar).....	0.4230
<i>Catalpa speciosa</i> (Catalpa).....	0.4165
<i>Populus heterophylla</i> (Downy Cottonwood).....	0.4089
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<i>Populus tremuloides</i> (Quaking Asp).....	0.4032
<i>Asimina triloba</i> (Pawpaw).....	0.3069
<i>Populus deltoides</i> (Cottonwood).....	0.3889
<i>Pinus Strobus</i> (White Pine).....	0.3854
<i>Thuja occidentalis</i> (Arbor-Vitæ).....	0.3164

PLATE 133.



ENGLISH AND METRIC SCALES COMPARED.

These can be cut out and pasted on wood.

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The accepted botanical names are in bold-face type, synonyms in italics and where the subject receives the most extended notice the page number is in bold-face type.

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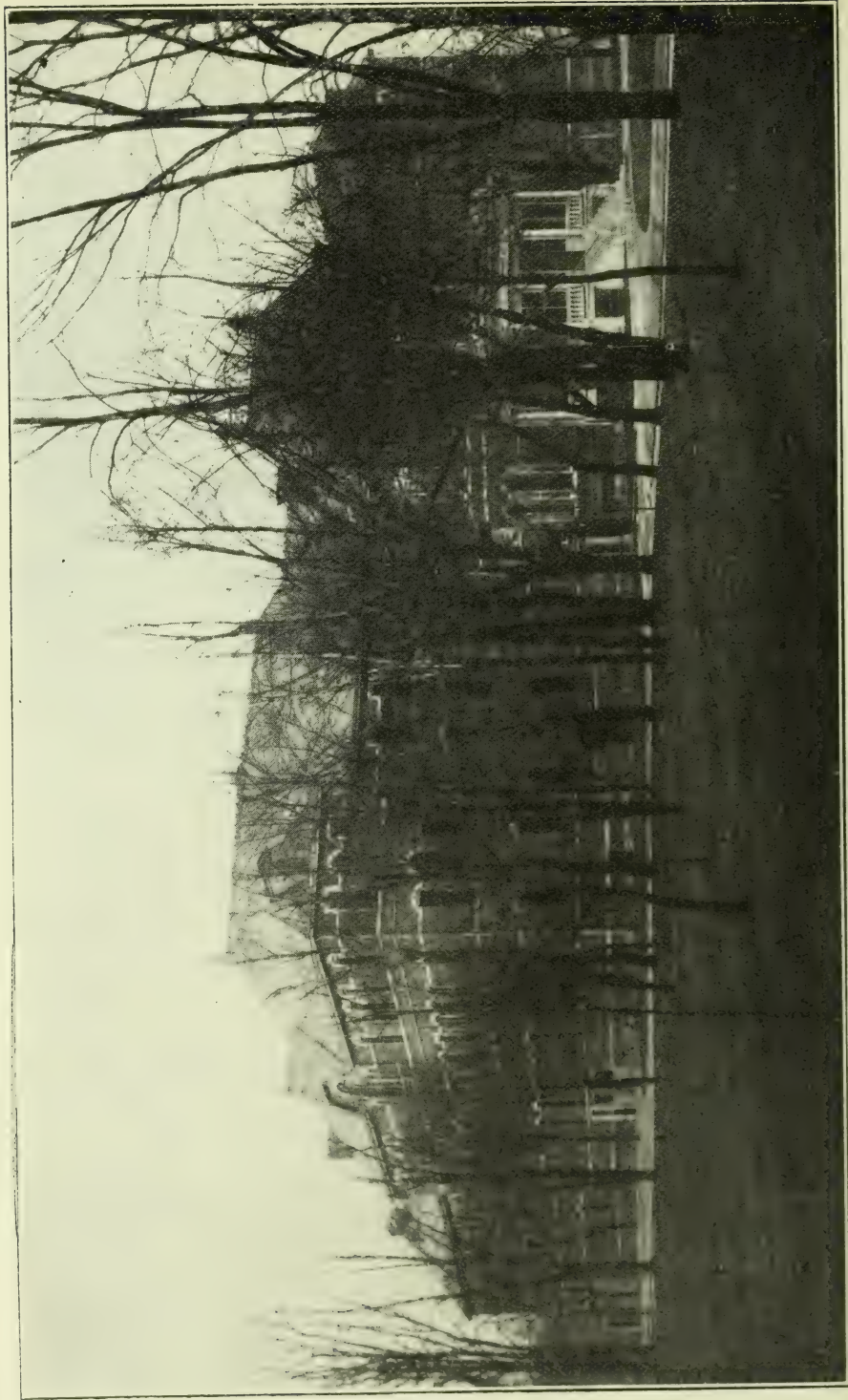
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INDIANA WOMAN'S PRISON.

FORTIETH ANNUAL REPORT

OF THE

BOARD OF TRUSTEES

OF THE

INDIANA WOMAN'S PRISON

AND THE

Fourth Annual Report *of the* Correctional Department of the Indiana Woman's Prison

FOR THE YEAR ENDING SEPTEMBER 30, 1911

TO THE GOVERNOR

INDIANAPOLIS :

WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING
1912

THE STATE OF INDIANA.

EXECUTIVE DEPARTMENT.

DECEMBER 6, 1911.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE.

INDIANAPOLIS, December 26, 1911.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN.

Auditor of State.

DECEMBER 27, 1911.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE.

Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana. December 27, 1911.

L. G. ELLINGHAM.

Secretary of State.

Received the within report and delivered to the printer December 27, 1911.

ED. D. DONNELL.

Clerk Printing Board.

BOARD OF TRUSTEES, INDIANA WOMAN'S PRISON.

FANNY MCKEE.....	Indianapolis, Ind.
CHARLOTTE J. DUNN.....	Indianapolis, Ind.
ETTA E. HOUK.....	Ossian, Ind.
ALICE W. POYNTER.....	Sullivan, Ind.

OFFICERS AND EMPLOYES.

Superintendent.

EMILY E. RHOADES.

MARGARET DORWIN.....	State Agent
EMMA HART	Storekeeper
MARY ALLISON.....	Matron, Prison
KATE GIRDNER.....	Kitchen Officer, Prison
MARY McDOUGALL.....	Laundry Officer, Prison
MILDRED WINCH.....	Supply Officer
ABBIE BOND.....	Supply Officer
NELLIE WALTERS.....	Kitchen Officer
MAY WILKINSON.....	Nurse
SARA E. SMITH.....	Officer Correctional Department
MRS. F. W. BRENNAN.....	Officer Correctional Department

Physician.

MARTHA J. SMITH, M. D.

Clerk.

MAY STUART.

Employes.

CYRUS N. COX.....	Engineer
JOHN C. COX.....	Gatekeeper
JESSE E. WELLS.....	Night Watchman



LIBRARY.

REPORT OF THE BOARD OF TRUSTEES.

To the Honorable Thomas R. Marshall, Governor of Indiana:

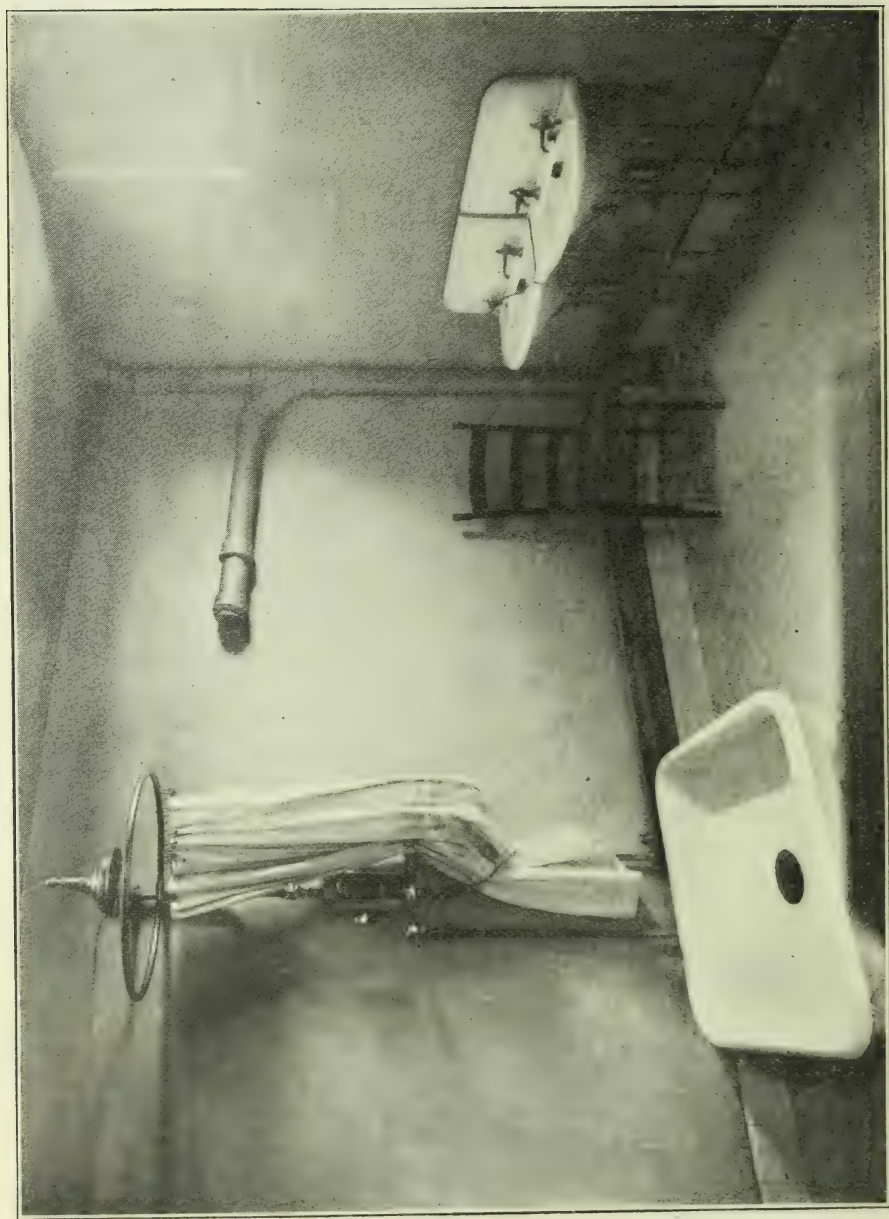
We, the Trustees of the Indiana Woman's Prison, respectfully submit herewith the following report for the fiscal year ending September 30, 1911:

We are gratified to be able to report that this last year shows an improvement in the material condition of the institution, as well as in the work accomplished by the women, and in the spirit manifested by them. The addition of an enclosed fire-escape, provided for by special appropriation of the last Legislature, has finally assured the safety of the inmates in case of fire, and has much relieved the burden of the responsibility felt by those intrusted with their safe-keeping. The completion of the new wing of nine rooms has provided the accommodation necessary for the proper management of the institution, and has made possible the continuance of the policy of giving to each woman a separate room, which is recognized by all who have had experience in correctional work as conducive to good discipline, good health and good morals.

The work on the grounds has been one of permanent improvement. The low ground, formerly the channel of a branch of Pogue's Run, which has now been diverted by a sewer, has been largely filled in and leveled off. Here fruit trees have been planted for the future use of the institution. The garden has been enclosed by a new fence. The guttering and other tinwork of the roofs has been replaced and painted. The exterior woodwork of the central building has been repainted, and a great deal of interior painting has been done also. The work done in the chapel is especially satisfactory.

In addition to the work connected with the maintenance of the institution, there has been a noticeable increase in that which contributes to the earnings of the prison, especially in the laundry, the earnings from which more than doubled those of the preceding year.

The health of the women has been excellent. There has been but one case of serious illness, and in that the patient has recovered. The sanitary condition of the institution is very gratifying.



RECEIVING BATH ROOM.

PENAL DEPARTMENT.

In this department the report for the year is commendable. The obedience of the women to all rules has been very satisfactory. They have very cheerfully complied with their duties, and have performed well their work, and our visits to their rooms show that they pride themselves in keeping their own quarters in a tidy manner, each room being a model of neatness and as homelike as possible under the existing circumstances.

The work of the women consists of washing and ironing, sewing, quilting, cooking, gardening, care of live stock and lawn, and all necessary labor connected with the institution, even to the interior painting, and the manner in which they perform their tasks shows that they are taught "that what is worth doing at all is worth doing well."

Services are conducted in the chapel each Sunday afternoon by local ministers; Sabbath school is held regularly, as is also a mid-week prayer meeting—all influences for good. The Sunday dresses of the women in this department are now of pure white instead of the sombre black formerly in use, and this change not only greatly alters the appearance of the family when assembled in the chapel, but is having a beneficial effect upon the women themselves.

CORRECTIONAL DEPARTMENT.

This department is accomplishing a much needed work, and it is to be hoped that its value may be more generally recognized in all the counties of the State. So far as is possible, considering the length of the sentence, the women in this department are given the same instruction as the women on the penal side. They are taught to do housework, to cook and to sew. They are doing excellent work, not only for the institution, but for outside patrons as well.

Together with the penal women, they attend the chapel services, and have Sabbath school and prayer meeting. For many, it is the first time in their lives that they have been so surrounded with helpful influences. The chapel dress of the correctional women is of light blue gingham, with neat white collars and cuffs.

You will find a more specific statement in the reports of the Superintendent, Clerk and Physician.

Respectfully submitted,

FANNY MCKEE.
ALICE W. POYNTER.
ETTA E. HOUK.
CHARLOTTE J. DUNN.



DINING ROOM—CORRECTION DEPARTMENT.

SUPERINTENDENT'S REPORT.

To the Board of Trustees of the Indiana Woman's Prison:

Ladies—I herewith submit the fortieth annual report of the Indiana Woman's Prison, and the fourth annual report of the correctional department for the fiscal year ending September 30, 1911.

We have endeavored during the year just closed to keep up the same high standard which has characterized the work of this institution in years past. As has always been the case, nearly all of the work has been done by the women. They are kept busy, and as a consequence an atmosphere of cheerfulness pervades the institution.

During the year the chapel has been painted and the place given a general overhauling, all of the work being done by the women. A great deal of painting was done in other parts of the building, also.

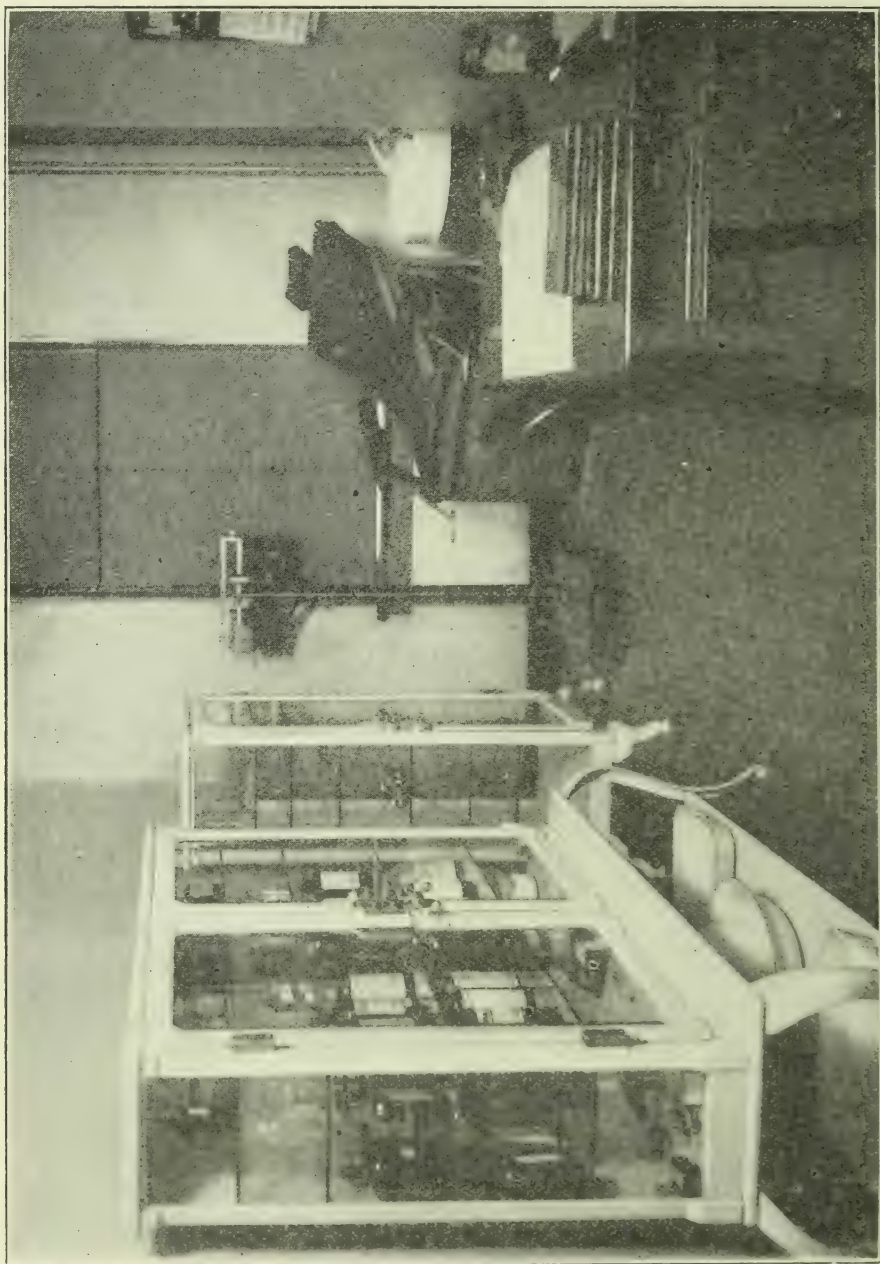
A new fire-escape has been installed on the west side of the building, thereby adding to the safety of the women. A specific appropriation of \$1,800 was made by the Legislature of 1911 for this extra improvement. The south dormitory on the third floor of the prison was remodeled, making nine pleasant rooms for the women.

In the correctional department this last year the number received was less than the year previous, but in a majority of the cases the women were given longer sentences. Several counties were represented, from which we have heretofore received no women. There were two hundred commitments to this department, and one woman was returned from the hospital.

In the penal department we received seventeen women on commitments, five were returned from escape and four returned for violating their parole. We have sixty-one in the department.

Three women, two sentenced for life and one an indeterminate sentence, were paroled by the Governor during the year, one life woman who had been paroled was pardoned likewise, and one life woman was pardoned by the State Board of Pardons. All are doing well. Suspended sentence women on parole, nine.

Six of the women who have been on parole were given their final discharge during the year, and one paroled woman escaped and is delinquent; otherwise all report promptly and satisfactorily



SURGERY.

Our laundry work has increased very materially this year. The earnings from this occupation were \$1,959.49, more than double what it was last year, and this is due in part to the assistance given on the city work by the women in the correctional department. The earnings from the sewing room were \$224.35, and from other sources \$394.20, making a total of \$2,578.04.

We have profited by the unusual abundance of fruit to be had at reasonable prices and have canned great quantities for winter use. A great many of the vegetables used in the institution have been raised by the women, and unusually good crops have rewarded their care and efforts.

The various officers have been punctilious in the performance of their duties, and I am indebted to them for their part in making the year a successful one.

With gratitude to the Board of Trustees for their kindness and support given toward the success of the year, I herewith submit my report.

Very respectfully,

EMILY E. RHOADES,
Superintendent.



SEWING ROOM.

REPORT OF PHYSICIAN.

To the Superintendent of the Indiana Woman's Prison:

Miss Rhoades—The following report is respectfully submitted for the hospitals of the prison for the fiscal year ending September 30, 1911.

PENAL DEPARTMENT.

The total number of cases of illness treated in the hospital was one hundred and fifty-seven.

The number of cases treated each month was as follows:

Month.	No. Cases.
October	15
November	11
December	16
January	12
February	15
March	15
April	9
May	15
June	13
July	7
August	14
September	15

Many women received medical attention for minor ailments, such as headache, constipation, cuts, etc., from the nurse, in addition to the above cases. Seventeen women, twelve white and five colored, were received and a physical examination made. One white woman was addicted to morphine, one woman was an epileptic and four were suffering from specific diseases. There was one case of pregnancy. Dr. Theodore Potter was called once in consultation. The general health has been excellent. No deaths occurred.

CORRECTIONAL DEPARTMENT.

The total number of cases treated in this department was three hundred and sixty-six.

The number of cases treated each month was as follows :

Month.	No Cases.
October	27
November	32
December	15
January	15
February	13
March	25
April	31
May	22
June	19
July	28
August	12
September	27

Two hundred women, one hundred and eighteen white and eighty-two colored, were received and examined. Three were in pregnant condition, two were suffering from delirium tremens, five were addicted to morphine, one to paregoric, one to headache powders and bromides, and a number to drink and cigarettes. Twelve were suffering from specific diseases. Four women were found to be insane by insanity commissions and sent to insane hospital. One woman was seriously ill from typhoid fever, but recovered. A large per cent. of the women in this department are suffering from some one or more diseases when received, and require treatment at once. The general health has been good and no deaths occurred.

Respectfully submitted,

MARTHA J. SMITH,
Physician.

REPORT OF CLERK.

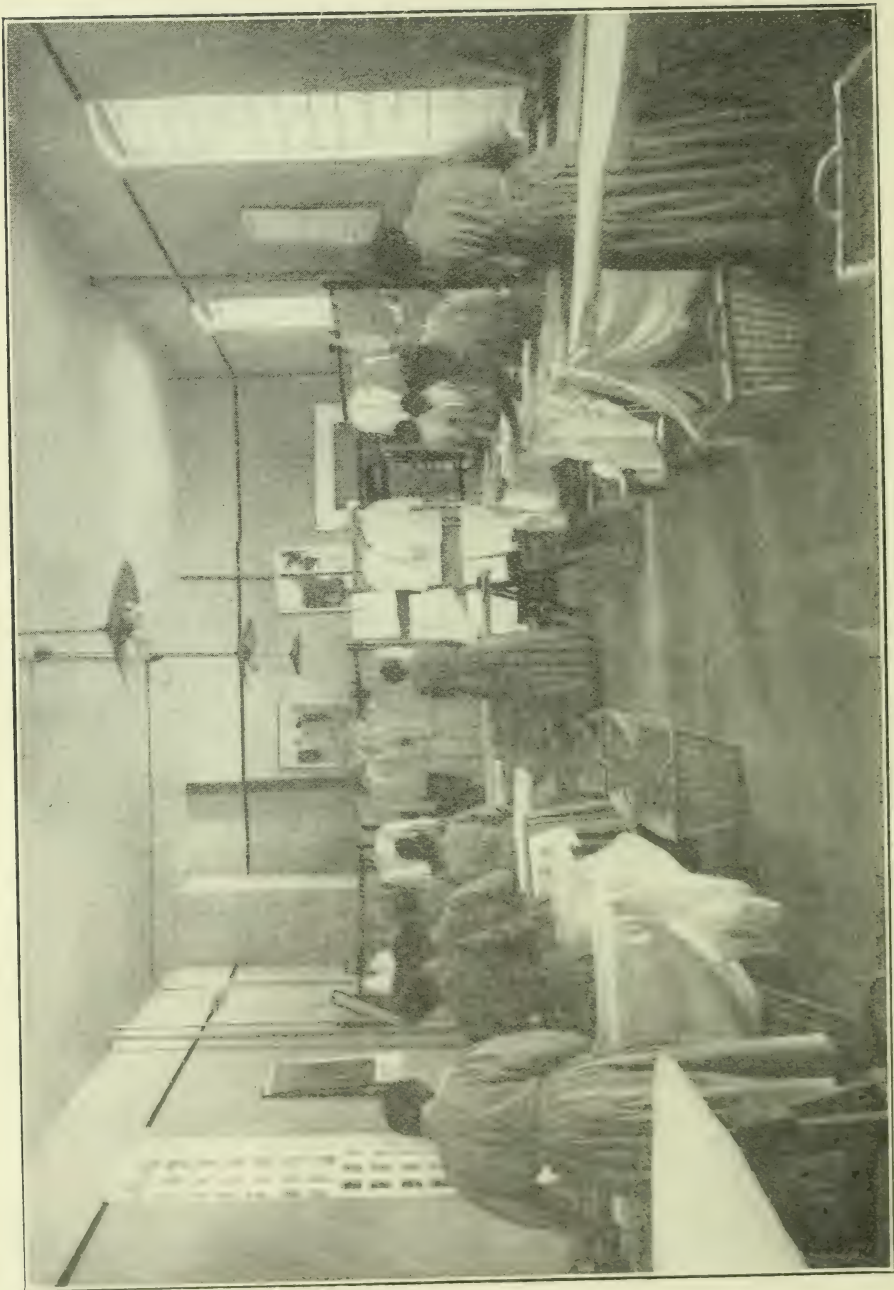
To the Superintendent:

The following pages will show the financial and statistical tables of the Indiana Woman's Prison, penal and correctional departments, for the year ending September 30, 1911.

Respectfully,

MAY STUART,

Clerk.



LAUNDRY.

CLASSIFIED EXPENDITURES.

October 1, 1910, to September 30, 1911.

CURRENT EXPENDITURES.

Administration.

	Amount	Per Capita
Trustees	\$1,150 00	\$9 66
Officers	6,925 00	58 20
Other employes	2,445 00	20 55
Total	\$10,520 00	\$88 41

Subsistence.

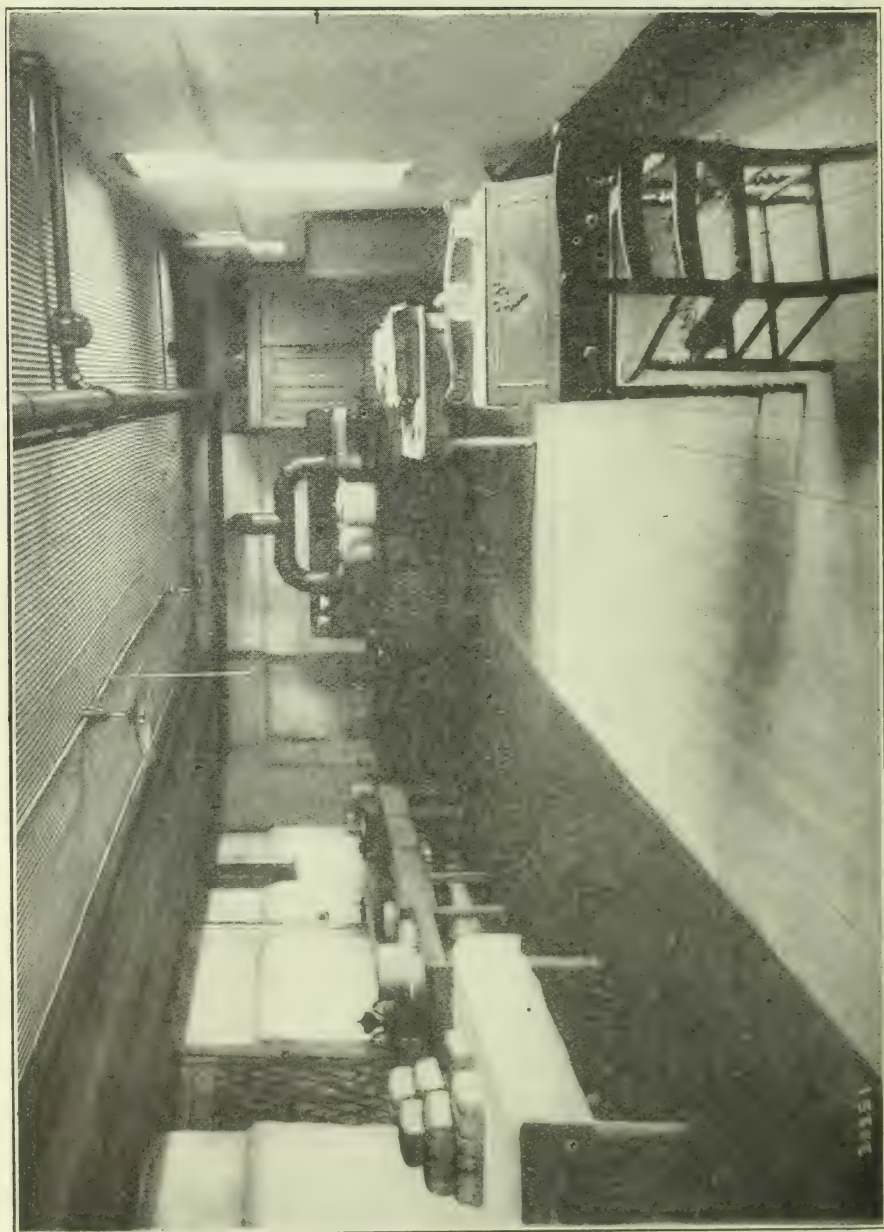
Fresh meats	\$1,235 40	\$10 38
Salted meats and lard	173 04	1 46
Fish (fresh and cured), oysters, etc.....	13 20	11
Butter, eggs and poultry.....	357 11	3 00
Vegetables	432 15	3 63
Fresh fruits	294 46	2 47
Dried fruits	423 96	3 56
Canned goods	133 14	1 12
Breadstuffs, cereals, beans, etc.....	978 66	8 22
Vinegar and syrup	78 97	66
Tea, coffee and sugar.....	420 85	3 54
Milk	397 60	3 34
Other food supplies	140 19	1 18
Total	\$5,078 73	\$42 68

Clothing, Etc.

Clothing	\$294 42	\$2 47
Shoes	54 35	46
Tailor and sewing room supplies.....	56 99	48
Total	\$405 76	\$3 41

Sundries.

Library, newspapers and periodicals.....	\$306 31	\$2 57
Stationery and printing.....	258 00	2 17
Furniture, fixtures, bedding and other household equipment	1,105 50	9 29



KITCHEN.

Laundry supplies, soap and other cleansers	\$659 46	\$5 54
Medicines, instruments and other sick ward supplies.	166 20	1 40
Postage, telegraph, telephone, etc.....	205 75	1 73
Freight and transportation	771 20	6 48
Stable, farm, garden, provender, etc.....	1,913 63	16 08
Ice	163 64	1 38
Discharged inmates (gate money, etc.).....	438 13	3 68
Fuel	2,720 95	22 87
Light	506 77	4 26
Engineer's supplies	222 54	1 87
Water	200 04	1 68
Insurance	14 00	12
Other classifications	802 48	8 73
<hr/>		
Total	\$10,454 60	\$87 86

Ordinary Repairs and Minor Improvements.

Materials and labor	\$3,144 55	\$26 43
<hr/>		
Total	\$3,144 55	\$26 43

EXTRAORDINARY EXPENSES.

New buildings and furnishings	\$1,800 00	\$15 12
Permanent improvements		
Land		
<hr/>		
Total extraordinary expenses.....	\$1,800 00	\$15 12
<hr/>		
Grand total of current expenditures.....	\$31,403 00	\$263 91
Less earnings paid into State Treasury.....	2,578 04	21 66
<hr/>		
Net cost to State	\$28,825 00	\$242 24

*Based on daily average attendance.

APPROPRIATIONS.

Fund.	Act. Approved.	Regular or Specific.	Amount Available for Current Year.	Expended During Year.	BALANCE.	
					Reverting to State Treasury.	Available for Further Use.
Maintenance	March 9, 1909	Regular.	\$19,000 00	\$19,000 00		
Additional maintenance—Excess population	March 9, 1909.	Regular.	10,187 85	7,972 86	\$2,214 99	
Repairs	March 9, 1909	Regular.	2,000 00	1,999 14	86	
Discharge	March 9, 1909.	Regular.	1,000 00	438 13	561 87	
Library	March 9, 1909	Regular	300 00	293 51	6 49	
Additional repairs	March 4, 1911.	Specific	1,800 00	1,800 00		
Total			\$34,287 85.	\$31,503 64	\$2,783 99	

SUMMARY OF EXPENDITURES.

OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

Fund.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total.
Maintenance	\$2,205 79	\$2,080 99	\$1,846 00	\$2,168 77	\$2,123 36	\$2,188 39	\$1,951 03	\$2,166 04	\$2,084 70	\$281 02			\$19,000 00
Additional maintenance account excess population										2,008 40	\$2,423 17	\$3,381 29	7,872 86
Repairs.	31 92	96 34	69 90	982 28	59 69	114 80	55 29	165 83	262 29	130 80		30 00	1,999 14
Discharge		25 06	6 25	7 50	43 41	139 20	8 20		11 85	5 00	34 05	147 61	438 13
Library						22 00	46 75		7 50		18 25	199 01	293 51
Additional repairs.											1,800 00		1,800 00
Total.....	\$2,241 71	\$2,212 39	\$1,922 15	\$3,158 55	\$2,226 46	\$2,464 30	\$2,061 27	\$2,331 87	\$2,366 34	\$2,485 22	\$4,275 47	\$3,737 91	\$31,503 64

OFFICERS AND EMPLOYES.

SEPTEMBER 30, 1911.

POSITION.	Number Employed.	Salary Per Month.	Additional Compensation (Board, Laundry, etc.)
Trustees.....	Four..	\$25 00	
Superintendent....	One....	125 00	Maintenance.
Agent.....	One....	60 00	Maintenance.
Physician.....	One....	40 00	
Clerk.....	One....	60 00	Laundry and dinner.
Storekeeper.....	One....	30 00	Maintenance.
Prison Matron.....	One....	50 00	Maintenance.
Officers.....	Six....	30 00	Maintenance.
Nurse.....	One....	40 00	Maintenance.
Engineer.....	One....	80 00	Two meals daily.
Lodgekeeper.....	Two....	65 00	Rent, laundry, fuel and light.
Night watchman.....	One....	55 00	Two meals daily.

STATEMENT OF EARNINGS.

MONTHS.	Source of Receipt.			Total.
	Prison Laundry.	Prison Sewing.	Miscellaneous Earnings.	
October.....	\$159 25	\$11 05		\$170 30
November.....	91 70	21 90	\$36 80	150 40
December.....	70 10	26 75		96 85
January.....	219 45	13 40	36 80	269 65
February.....	99 05	10 35		109 40
March.....	180 65	27 10		207 75
April.....	140 10	34 15	250 00	424 25
May.....	192 15	26 25	36 00	254 40
June.....	234 28	6 25	2 00	242 53
July.....	149 15	11 80		160 95
August.....	139 70	6 25	32 60	178 55
September.....	283 91	29 10		313 01
Total.....	\$1,959 49	\$224 35	\$394 20	\$2,578 04

EARNINGS DEPOSITED WITH STATE TREASURER.

DATE.	Amount.	Number of Quotus.
November 7, 1910.....	\$170 30	2785
December 5, 1910.....	150 40	2987
January 3, 1911.....	96 85	3181
February 2, 1911.....	269 65	3284
March 2, 1911.....	109 40	3430
April 1, 1911.....	207 75	3619
May 1, 1911.....	424 25	3856
June 1, 1911.....	254 40	4000
July 1, 1911.....	242 53	4170
August 1, 1911.....	160 95	4237
September 1, 1911.....	178 55	4270
September 27, 1911.....	313 01	4402

SUMMARY OF STATISTICS FOR THE YEAR ENDING SEPTEMBER 30, 1911.

(Prepared in conformity to resolution adopted by the National Conference of Charities and Correction, Philadelphia, May, 1906.)

MOVEMENT OF POPULATION.

	Penal.	Corr.	Total.
Number of inmates enrolled October 1, 1910	58	57	115
Temporarily absent
Number of inmates received during year...	26	201	227*
Number of inmates discharged during year.	23	194	217**
Number of inmates enrolled September 30, 1911	61	65	126
Temporarily absent
Daily average attendance of inmates for year ending September 30, 1911.....	58.087	60.906	118.994
	Officers and Trustees. Employees. Total.		
Average number of officers and employes..	4	16	20

EXPENDITURES.

Ordinary expenses—	Per Capita.	Total.
Salaries and wages.....	\$88 41	\$10,520 00
Subsistence	42 68	5,078 73
Clothing	3 41	405 76
Office, domestic and outdoor expenses.....	87 86	10,454 60
Ordinary repairs	26 43	3,144 55
Total	\$248 79	\$29,603 64
Extraordinary expenses—		
New buildings and furnishings of same.....	\$15 12	\$1,800 00
Permanent improvements
Total	\$15 12	\$1,800 00
Grand total expenses.....		\$31,503 64
Receipts and earnings		2,578 04
Net total expenses		\$28,925 60

*217 from courts, 10 from other sources.

**210 permanently or by parols, 7 escapes.

MOVEMENT OF POPULATION FROM OPENING OF INSTITUTION.

PENAL DEPARTMENT.

YEAR.	How RECEIVED.					How RELEASED.										Remaining at Close of Year.	Daily Average Attendance.		
	From Courts.	Returned for Violation of Parole.	Transferred from Other Institutions.	Returned from Escape.	Awaiting Trial.	Total.	Discharged.	Paroled.	Pardoned or Paroled by Governor.	Escaped.	Died.	Transferred to Other Institutions.	Pardoned by President.	Released by Order of Supreme Court.	Held for Trial and Released.			Total.	
1873	4		17			21	8										8	21	21
1874	14		17			14	9										9	30	30
1875	14		14			14	19										19	30	35
1876	14		32			32	9										10	52	19
1877	32		22			22	9										29	45	52
1878	22		21			21	23										27	41	41
1879	21		22			22	23										27	48	27
1880	34		34			34	22										24	44	44
1881	20		20			20	19										24	55	46.6
1882	33		33			33	22										48	50	48.3
1883	17		17			17	25										33	50	50.0
1884	37		40			40	23										29	43	46.8
1885	18		18			18	21										23	45	48.0
1886	29		29			29	11										23	54	50.0
1887	31		31			31	11										23	54	50.0
1888	27		27			27	22										23	52	48.0
1889	32		32			32	24										24	55	50.0
1890	23		23			23	24										25	59	57
1891	31		31			31	22										25	57	57
1892	25		25			25	22										35	53	56
1893	25		22			22	26										35	58	51
1894	12		12			12	22										29	48	48.3
1895	28		28			28	16										27	46	50
1896	26		26			26	22										36	38	38
1897	32		32			32	26										22	46	41
1898	37		37			37	21										18	46	41
1899	27		27			27	27										27	43	45
1900	32		32			32	19										30	45	44
1901	32		32			32	12										26	56	51
1902	38		38			38	8										35	49	51
1903	27		27			27	3										32	52	47
1904	25		25			25	8										35	53	53.7
1905	29		29			29	9										39	46	50.7
1906	16		16			16	7										32	52	50.7
1907	22		22			22	6										32	52	48.4
1908	14		14			14	3										25	53	51.9
1909	22		22			22	3										28	52	55.9
1910	21		21			21	5										21	48	47.5
1911	15		15			15	2										25	48	53.3
Total	929	61	19	11	2	1,022	636	210	44	23	24	12	1	4	5		959	58.0	58.0

MOVEMENT OF POPULATION FROM OPENING OF CORRECTIONAL DEPARTMENT.

YEAR.	HOW RECEIVED.						HOW RELEASED.										Daily Average Attendance.	
	From Courts.	Returned for Violation of Parole.	Transferred from Other Institutions.	Returned from Escape.	Awaiting Trial.	Total.	Discharged.	Paroled.	Pardoned or Paroled by Governor.	Escaped.	Died.	Transferred to Other Institutions.	Pardoned by President.	Released by Order of Supreme Court.	Held for Trial and Released.	Total.		Remaining at Close of Year.
1908.	92					92	48					1				49	43	22.8
1909.	214		1			215	190		1			2				193	58	37.8
1910.	217	1	1			219	214		3		2	6				225	65	53.1
1911.	200		1			201	186		2			6				194	65	60.9
Total.	723	1	3			727	638		6		2	15				661	

COUNTY REPRESENTATION.

COUNTIES.	RECEIVED FROM COURTS OCT. 1, 1908, TO SEPTEMBER 30, 1911.						Released During Year.		Present at Close of Year.		Died During Year.	
	Crimes Against Person.		Crimes Against Property.		Crimes Against Public Order.							
	Pen.	Corr.	Pen.	Corr.	Pen.	Corr.	Pen.	Corr.	Pen.	Corr.	Pen.	Corr.
Allen.....									1			
Bartholomew.....									1			
Blackford.....									1			
Brown.....								1				
Cass.....									1			
Clark.....					1				6			
Clinton.....									2			
Daviess.....			1						1			
Decatur.....									1			
Delaware.....							1		1			
Floyd.....			1						1			
Gibson.....						1		1	2			
Grant.....			1				1		2			
Hendricks.....									1			
Henry.....			1									
Howard.....							1		1			
Huntington.....			1						2			
Jefferson.....							1		1			
Johnson.....						1		1				
Knox.....							1					
Lake.....							2					
Laporte.....			1						3			
Lawrence.....									1			
Madison.....									1			
Marion.....	1	12	5	24		131	2	150	14	52		
Miami.....									1			
Montgomery.....			1						2			
Morgan.....									1			
Ripley.....							1					
Sullivan.....									1			
Tippecanoe.....		1					2	1	1			
Tipton.....	1								1			
Vanderburgh.....	1			1		6	2	13	1			
Vermillion.....				2				2				
Vigo.....		7	1	3		11	2	25	7	13		
Wells.....									1			
Total.....	3	20	13	30	1	150	16	194	61	65		

NUMBER COMMITTED FOR VARIOUS CRIMES DURING PAST FIVE YEARS.

CRIME.	1907.	1908.		1909.		1910.		1911.	
	Pen.	Pen.	Corr.	Pen.	Corr.	Pen.	Corr.	Pen.	Corr.
Abandonment and neglect of children			4		16			1	1
Abortion								1	
Accessory after fact to crime of rape						1			
Adultery			2		10		12		1
Adultery and fornication					1				6
Adultery and petit larceny									1
Aiding prisoners to escape									2
Arson	1	1		2		1			
Assault									1
Assault and battery			5		8		15		13
Assault and battery with intent						2			1
Assault and battery and drunk					1		3		2
Assault and battery and prostitute									1
Assault with intent to kill				1					
Assault and battery and disorderly conduct			6		4		2		
Bigamy								1	
Blackmail				1					
Blind tiger							1		
Carrying concealed weapons							1		
Child desertion						1			
Contributing to delinquency			1		1		3		4
Contributing to neglect of children							2		
Delinquency and incorrigibility			1						
Disorderly conduct			1		8		7		8
Disorderly conduct and drunk			1		17		11		9
Disturbing the peace			1		1				3
Disorderly conduct and idling and loitering							4		
Drawing deadly weapons			1		5				
Drawing deadly weapons and drunk									1
Drunk			6		22		34		15
Drunk, idling and loitering			5		9		12		16
Drunk and profanity			1		1		1		
Drunk and prostitute			5		5		5		3
Embezzlement					1				
Entering house to commit felony		1		1		1			
Enticing females to house of ill fame		1		1					
False pretense						1			
Fornication									1
Grand larceny	3	5		3		3	3	5	1
Idling and loitering			25		34		21		31
Idling and loitering and petit larceny					1				1
Idling and loitering and prostitutes			1		9		1		
Idling and loitering and vagrancy							1		
Incest									1
Interfering with an officer							1		
Intimidating a witness and prostitute					1				
Keeping house of ill fame					3		3		5
Manslaughter		3		1				2	
Murder	1	1				1			
Neglect of children							14		17
Petit larceny	8	7	8	10	11	2	20	7	30
Petit larceny and prostitute					3				
Profanity			1		3				
Prostitute			17		38		33		22
Public indecency							1		
Receiving stolen goods	1								
Receiving stolen money		1							
Resisting officer and throwing stones							1		
Robbery							1		
Subordination of perjury						1			
Trespass									1
Trespass and resisting officer					1				
Uttering forged check				1					
Vagrancy							4		1
Violation of postal laws		2				1			
Visiting opium den									1
Forgery								1	
Total	14	22	92	21	214	16	217	17	200

STATISTICS OF PRISONERS COMMITTED DURING YEAR.

CRIMES—CLASSIFIED.

	Against the Person.		Against Property.		Against Public Order, Etc.		Total.	
	Penal.	Corr.	Penal.	Corr.	Penal.	Corr.	Penal.	Corr.
AGE—								
Fifteen to nineteen years		2	3	8		12	3	22
Twenty to twenty-four years	1	10	3	11		39	4	60
Twenty-five to twenty-nine years		4	2	2		26	2	32
Thirty to thirty-four years		4	2	4	1	20	3	28
Thirty-five to thirty-nine years				2		19		21
Forty to forty-four years			1	1		14	1	15
Forty-five to forty-nine years	1		1	1		11	2	12
Fifty to fifty-four years			1	1		4	1	5
Fifty-five to fifty-nine years						4		4
Sixty years and over	1					1	1	1
Total	3	20	13	30	1	150	17	200
COLOR—								
White	2	5	9	17	1	96	12	118
Colored	1	15	4	13		54	5	82
Total	3	20	13	30	1	150	17	200
BIRTHPLACE—								
Indiana	2	9	5	14		82	7	105
Illinois	1	1	2	3		12	3	16
Kentucky		6	3	4	1	30	4	40
Ohio		1	1	2		5	1	8
Missouri						4		4
Tennessee		1		2		4		7
Virginia				1		3		4
England						2		2
Massachusetts						1		1
Canada		1						1
Kansas		1						1
Louisiana				2				2
New York				2				2
California						1		1
Michigan						1		1
Georgia						1		1
Ireland						1		1
North Carolina						1		1
Pennsylvania			1			1	1	1
Germany						1		1
Iowa			1				1	
Total	3	20	13	30	1	150	17	200
SOCIAL CONDITION—								
Single	1	4	4	11		25	5	40
Married:								
Living together	2	5	2	6		48	4	59
Widowed		2	2	6		21	2	29
Divorced		1	2	3		18	2	22
Separated		8	3	4	1	38	4	50
Total	3	20	13	30	1	150	17	200
EDUCATIONAL STANDING—								
Illiterate		4	2	4		14	2	22
Read and Write	3	16	11	26	1	136	15	178
Total	3	20	13	30	1	150	17	200
USE OF INTOXICATING LIQUOR—								
Temperate	2	4	11	18	1	53	14	75
Moderate	1	16	2	12		97	3	125
Total	3	20	13	30	1	150	17	200

STATISTICS—Continued.

	Against the Person.		Against Property.		Against Public Order, Etc.		Total.	
	Penal.	Corr.	Penal.	Corr.	Penal.	Corr.	Penal.	Corr.
USE OF TOBACCO—								
Chew.....						3		3
Smoke.....		2		1		12		15
Chew and smoke.....						1		1
Do not use it.....	3	18	13	29	1	134	17	181
Total.....	3	20	13	30	1	150	17	200
OTHER HABITS—								
Smoke cigarettes.....		8		1		24		33
Addicted to drugs.....			1	3			1	3
Total.....		8	1	4		24	1	36
CHURCH AFFILIATION—								
Non-professors.....	1	13	3	14	1	100	5	127
Methodists.....	1	1	1	5		13	2	19
Baptists.....		3	3	3		15	3	21
Christian.....	1	1	2	2		7	3	10
Presbyterian.....				2		2		4
Catholic.....		2	2	2		10	2	14
New Light.....						1		1
Lutheran.....			1	1		2	1	3
Pentecost.....				1				1
Congregational.....			1				1	
Total.....	3	20	13	30	1	150	17	200
PURSUITS FOLLOWED BEFORE CONVICTION—								
Housewife.....	2	2	1	1		17	3	20
General housework.....	1	8	3	8		44	4	60
Worked in candy factory.....						2		2
Seamstress.....				2	1	2	1	4
None.....				1		11	1	12
Clairvoyant.....			1				1	
Clerk in store.....						1		1
Artist.....			1				1	
Cigar roller.....						1		1
Snake charmer.....			1				1	
Worked in fish-market.....						1		1
Milliner.....			1			2	1	2
Dishwasher.....						4		4
Domestic.....		1	1	4		12	1	17
Cashier in poolroom.....						1		1
Waitress.....			1	3		3	1	6
Stems tobacco.....						1		1
Cook.....			1	1		4	1	5
Enamelled in factory.....				1				1
Garden work.....			2				2	
Telephone operator.....				1				1
Laundry work.....		6		4		32		42
Prostitute.....		3		1		3		7
Nursing.....				1				1
Chambermaid.....				1		8		9
Hair dresser.....				1		1		2
Total.....	3	20	13	30	1	150	17	200
OCCUPATION AT TIME OF CONVICTION—								
Idle.....				1		11		12
Employed.....	3	20	13	29	1	139	17	188
Total.....	3	20	13	30	1	150	17	200
ASSOCIATES—								
Good.....	1	4	7	12	1	29	9	45
Fair.....		1	2	1		13	2	15
Bad.....	2	15	4	17		108	6	140
Total.....	3	20	13	30	1	150	17	200

STATISTICS—Continued.

	Against the Person.		Against Property.		Against Public Order, Etc.		Total.	
	Penal.	Corr.	Penal.	Corr.	Penal.	Corr.	Penal.	Corr.
TERM OF SENTENCE—								
One to eight years.....			5	2			5	2
One to fourteen years.....			5				5	
Two to five years.....					1		1	
Two to fourteen years.....			1				1	
Two to twenty-one years.....	2						2	
Three to fourteen years.....	1						1	
Until twenty-one years of age.....			2				2	
Fined \$11.....						1		1
Fined \$15.....		1				1		2
Fined \$60.....						3		3
Fined \$110.....						2		2
Ten days and \$20.....				1		2		3
Thirty days and \$11.....		1				5		6
Thirty days and \$13.....						1		1
Thirty days and \$15.....						1		1
Thirty days and \$20.....		6				23		29
Thirty days and \$35.....		2		4		33		39
Thirty days and \$60.....						25		25
Thirty days and \$110.....						22		22
Sixty days and \$11.....		1		2				3
Sixty days and \$20.....		1		3		1		5
Sixty days and \$28.....						1		1
Ninety days and \$20.....						1		1
Ninety days and \$35.....						1		1
Ninety days and \$53.....						1		1
Ninety days and \$60.....						2		2
Ninety days and \$103.....						3		3
Ninety days and \$110.....								
One hundred days and \$210.....		1						1
One hundred days and \$310.....		1						1
One hundred twenty days and \$9.....						1		1
One hundred fifty days and \$215.....				1		1		2
One hundred fifty days and \$319.....		1						1
One hundred eighty days and \$9.....						1		1
One hundred eighty days and \$11.....				12		4		16
One hundred eighty days and \$60.....						1		1
One hundred eighty days and \$103.....						1		1
One hundred eighty days and \$210.....						2		2
One hundred eighty days and \$215.....				2				2
One hundred eighty days and \$260.....				1				1
One hundred eighty days and \$310.....		3						3
One hundred eighty days and \$503.....						1		1
One hundred eighty days and \$510.....						1		1
Two hundred ten days and \$270.....		1						1
Three months.....						1		1
Four months and \$20.....				1				1
Five months and \$11.....						2		2
Six months and \$9.....						1		1
Six months and \$110.....						1		1
One year and \$10.50.....								1
One year and \$24.35.....				1				1
Sixty days and \$170.....						1		1
One hundred eighty days and \$203.....						1		1
Total.....	3	20	13	30	1	150	17	200
NUMBER OF FORMER COMMITMENTS—								
None.....	2	7	11	14	1	47	14	68
One.....		4	2	8		26	2	38
Two.....	1	1		2		11	1	17
Three.....		1		1		7		9
Four.....		1		1		4		6
Five.....				1		2		3
Several.....		6		3		50		59
Total.....	3	20	13	30	1	150	17	200
MENTAL CONDITION—								
Active.....	3	17	11	28	1	120	15	165
Fair.....		3		2		29		34
Dull.....			1			1	1	4
Feeble-minded.....								
Total.....	3	20	13	30	1	150	17	200

STATISTICS—Continued.

	Against the Person.		Against Property.		Against Public Order, Etc.		Total.	
	Penal.	Corr.	Penal.	Corr.	Penal.	Corr.	Penal.	Corr.
PHYSICAL CONDITION—								
Good.....	2	20	9	20	1	96	12	136
Fair.....	1		3	6		44	4	50
Poor.....			1	4		10	1	14
Total.....	3	20	13	30	1	150	17	200
AGE AT LEAVING HOME—								
Five to ten years.....		1		1		5		7
Eleven to fifteen years.....		4	8	1	1	15	9	20
Fifteen to twenty years.....	1	13	4	24		81	5	118
Twenty-one years and over.....	1	2	1	3		14	2	19
Unknown.....	1			1		35	1	36
Total.....	3	20	13	30	1	150	17	200
SOCIAL CONDITION OF PARENTS—								
Parents living together.....		6	2	10		31	2	47
Parents living but separated.....		1		1		12		14
Father dead.....		8	9			45		62
Mother dead.....		2	2	1		17	2	20
Both dead.....	3	3	9	9	1	45	13	57
Unknown.....								
Total.....	3	20	13	30	1	150	17	200
NATIVITY OF PARENTS—								
Native born.....	3	19	11	20	1	121	15	160
Foreign.....				4		11		15
Mother foreign.....		1				1		2
Father foreign.....				2		5		7
Unknown.....			2	4		12	2	16
Total.....	3	20	13	30	1	150	17	200
HABITS OF PARENTS—								
Intemperate fathers.....				1		8		9
Intemperate mothers.....						1		1
Both temperate.....	3	20	13	29	1	141	17	190
Both intemperate.....								
Total.....	3	20	13	30	1	150	17	200

FARM AND GARDEN PRODUCTS.

OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

PRODUCT.	Quantity Raised.	Estimated Value.	Estimated Value of Produce Used During Year.		
			In Kitchen.	In Out-Door Departments.	Total.
Beans.....	43 bushels.....	\$22 06	All.	None.	\$22 06
Butter.....	8 pounds.....	1 60	All.	None.	1 60
Beets.....	4½ bushels.....	1 80	All.	None.	1 80
Cabbage.....	107 bushels.....	23 45	All.	None.	23 45
Cherries.....	20 gallons.....	2 00	All.	None.	2 00
Chicken.....	1,210 pounds.....	108 06	All.	None.	108 06
Corn.....	72 dozen.....	5 33	All.	None.	5 33
Eggs.....	932 dozen.....	111 60	All.	None.	111 60
Grapes.....	180 pounds.....	3 00	All.	None.	3 00
Lettuce.....	12 bushels.....	3 45	All.	None.	3 45
Lima beans.....	23 gallons.....	3 40	All.	None.	3 40
Milk.....	231 gallons.....	46 20	All.	None.	46 20
Onions.....	36 bushels.....	13 75	All.	None.	13 75
Onions.....	425 dozen.....	5 05	All.	None.	5 05
Peas.....	2½ bushels.....	1 95	All.	None.	1 95
Pumpkins.....	8.....	60	All.	None.	60
Radishes.....	2,112 bunches.....	4 42	All.	None.	4 42
Strawberries.....	216 gallons.....	13 30	All.	None.	13 30
Tomatoes.....	143½ bushels.....	42 07	All.	None.	42 07
Turnips.....	9 bushels.....	4 35	All.	None.	4 35
Total.....		\$417 44	All.	None.	\$417 44

Estimated cost of production, \$158.83.

INVENTORY.

Real estate, 15.61 acres.....	\$35,000 00
Buildings.....	101,970 00
Equipment.....	2,515 00
Total.....	\$139,485 00

LAWS
GOVERNING AND CONTROLLING
THE
INDIANA WOMAN'S PRISON

WOMAN'S PRISON—GIRLS' INDUSTRIAL SCHOOL.

(1869 S., p. 61. In force May 13, 1869.)

8254. (6162.) *Established.* 1. There shall be established as soon as practicable after the taking effect of this act, at or near the city of Indianapolis, an institution to be known as the "Indiana Reformatory Institution for Women and Girls."

Diminution of time for good behavior, Sections 8238-8241.

Home for Friendless Women, Sections 8243-8350.

The penal department created by this act is a State prison, and the act of April, 1881, concerning public offenses and their punishment, did not repeal any of the provisions of this act. *Walton v. State*, 88 Ind. 9.

(Acts 1899, p. 22. In force February 7, 1899.)

8255. *Name Changed.* 1. That the name of the State institution known as "The Reform School for Girls and Woman's Prison" be changed. That hereafter said institution shall be, and they are hereby declared to be separate and distinct; the first of said institutions to be named and known as "The Indiana Industrial School for Girls;" the second institution to be named and known as "The Indiana Woman's Prison."

8255a. *Laws Applicable.* 2. All laws in force respecting the said "Reform School for Girls and Woman's Prison," including the management thereof, shall, as far as applicable thereto, apply and continue to these said separate institutions.

(1877, p. 64. In force March 3, 1877.)

8256. (6163.) *Board of Managers to be Women—Board of Audit.* 2. The general supervision and government shall be vested in a Board of Managers, consisting of three persons, who shall be women, to be known and designated as the "Board of Managers of the Indiana Reformatory Institution for Women and Girls." The members of the first board, to be appointed under this act, shall be Mrs. Emily A. Roache, Mrs. Rhoda M. Coffin and Mrs. Eliza Hendricks, whose terms of office shall be respectively two, four and six years—said terms of office to expire in the same order as the names occur in this act. As vacancies subsequently occur in the board, their successors shall be appointed by the Gov-

error, by and with the advice and consent of the Senate, and shall hold their offices for the term of four years from their appointment, and until their successors are appointed and qualified. The term of each manager shall be designated in her certificate of appointment. Upon the expiration of the term of service of any member of the Board of Managers, one manager shall be appointed in the same manner, whose term of office shall continue four years from and after the expiration of the term of her predecessor and until her successor is appointed and qualified. All vacancies in said board shall be filled by appointment by the Governor, subject to approval by the Senate at its next succeeding session. The person appointed to fill a vacancy shall be entitled to hold her office for the unexpired portion of the term of the person whom she may be appointed to succeed. Said managers, before entering upon the discharge of their duties, shall take an oath or affirmation faithfully to perform the duties of their office; which oath or affirmation shall be filed and preserved in the office of the Secretary of State: Provided, however, That the Governor, Auditor and Secretary of State, shall constitute a Board of Audit, whose duty it shall be to examine, audit and approve of the accounts and acts of said Board of Managers appointed under the provisions of this act.

(1869 S., p. 61. In force May 13, 1869.)

8257. (6164.) *President*. 3. The said Board of Managers shall appoint one of their number as President of the Board.

8258. (6165.) *Location*. 4. The Governor is hereby empowered to select and establish a site for said institution, which shall not be more than five miles distant from the corporate limits of the city of Indianapolis; and, for that purpose, he is authorized to receive, in the name of the State, by donation or purchase, not less than three nor more than ten acres of land, and he shall deposit a certificate of his location of the institution, together with the deed or deeds of conveyance of such land, with the Secretary of State.

8259. (6166.) *Management—Buildings*. 5. The said institution shall consist of two separate and distinct departments, one of which shall be designated as the "Reformatory Department" and the other as the "Penal Department." Both of said departments shall be under the management of the same officers, but separate buildings for the inmates of each department shall be provided on the same grounds.

8260. (6167.) *Plans.* The Board of Managers shall, with the approval of the Governor, prepare and adopt plans for the grounds, buildings and fixtures necessary and proper for such an institution within the limits of the appropriation hereinafter made, and, if practicable, the plans shall be so arranged that the buildings can be enlarged or added to without injury to their symmetry or usefulness. The Board may, with the like approval of the Governor, make and execute all necessary contracts for the construction of such buildings and fixtures and the improvement of the grounds according to the plans which may have been so adopted.

8261. (6168.) *Female Superintendent and Officers—Rules.*

7. Said Board of Managers may, with the approval of the Governor, appoint a suitable superintendent of said institution and all necessary subordinates (not exceeding a number to be fixed by the Governor), and fix their respective salaries; and shall have power, with the like approval, to make and enforce all such rules, regulations, ordinances and by-laws, for the government and discipline of said institution, and for the admission of girls into the Reformatory Department thereof, as they may deem just and proper. The superintendent and all the subordinate officers of said institution shall be females; Provided, however, That if a married woman shall be appointed superintendent, or to any subordinate position, the husband of such appointee may, with the consent of the board, reside in the institution, and may be assigned such duties or employment as the Board of Managers may prescribe.

8262. (6169.) *Bond of Superintendent.* 8. Before entering upon the discharge of her duties, the superintendent shall give bond to the State of Indiana, in the sum of ten thousand dollars or over, with security to be approved by said Board of Managers, conditioned for the faithful performance of her duties as such superintendent, and that she will faithfully account for all moneys, property and effects intrusted to her as such, and shall take an oath or affirmation to discharge the duties of her said office with fidelity; and if said superintendent shall be a married woman, such bond shall be executed by her husband and her sureties, but need not be signed by herself.

8263. (6170.) *Duties of Superintendent.* 9. The superintendent shall reside at the institution, and shall have the charge and custody of the buildings and other property thereof, and of the inmates who may be committed to both departments of the

institution, and shall govern them in accordance with such rules and regulations as the Board of Managers may prescribe, and shall employ such methods of discipline as will, as far as possible, reform the characters, preserve the health, promote regular improvement in the studies and industrial employments of the inmates of the institution, and secure them fixed habits of industry, morality and religion. The rules, regulations and discipline of each department of the institution shall be adapted to the character of the inmates thereof.

8264. (6171.) *Interest in Contracts.* 10. No manager, officer, or employe of said institution shall be personally interested, directly or indirectly, in any contract, purchase or sale made by or to or on behalf of said institution. All contracts, purchases or sales made in violation of this section shall be deemed and held null and void; and all money paid to such managers, officers or employes, or to any person for their benefit, in whole or in part consideration of such purchase, contract or sale, may be recovered back by civil action, in the name of the State of Indiana, against such manager, officer or employe, or against any person acting in her or his behalf, and it is hereby made the duty of the Governor and Board of Managers, upon satisfactory proof of such interest, to immediately remove such manager, officer or employe so offending and to report the facts to the Attorney-General, who shall take such legal steps in the premises as he may deem expedient.

8265. (6172.) *Annual Report.* 11. Said Board of Managers shall, on or before the first day of January in each year, after the institution is open for the reception of inmates, make to the Governor a full and detailed report of their doings as such managers, and of the receipts and expenditures of said institution, with such other information relating to the condition of the institution and its inmates, and the results attained, as may be deemed interesting or useful to the public; which report shall be communicated by the Governor to the General Assembly at the next succeeding session thereof.

Reports as to receipts and payments to State, Sections 3016a, 3016b.

8266. (6173.) *Opening.* 12. Whenever said institution, or either department thereof, shall have been so far completed as to admit the reception of inmates intended to be committed thereto, the Governor shall make due proclamation of the fact, and, thereafter, it shall be lawful for the Board of Managers to receive into

their care, custody or guardianship such inmates as may be committed or transferred to either of the departments of said institution, in the manner hereafter prescribed.

8267. (6174.) *Penal Department.* 13. The Penal Department of said institution shall be used for the imprisonment, safe custody and reformation of such women and girls as shall heretofore have been convicted of criminal offenses and sentenced to the State Prison at Jeffersonville, and who are now undergoing imprisonment in that prison, in pursuance of such sentences; and also such women and girls over the age of fifteen years who may hereafter be sentenced to imprisonment in the Penal Department of the institution created by this act, upon conviction by any court of competent jurisdiction of any crime for which such woman or girl might, prior to the passage of this act, have been sentenced to said State Prison.

8268. (6175.) *Convicts From Southern State Prison.* 14. As soon as the Penal Department of the institution created by this act shall be ready for the reception of inmates it shall be the duty of the warden of said State Prison, upon the order of the Governor, to transfer and convey to the institution created by this act all the female convicts who may then be confined in said prison, and deliver them to the superintendent of said institution, with a certified statement in writing, signed by such warden, setting forth the name of each convict, the court by which, the offense of and for which she was convicted and sentenced, the date of sentence, the term of court at which sentence was pronounced and the term for which such convict was sentenced, which certified statement shall be sufficient authority for the confinement of such convict in the institution created by this act for the portion of the term of such convict which may be and remain unexpired at the time when she shall be transferred to said institution as aforesaid.

8269. (6176.) *Female Convicts in Southern State Prison.* 15. When the Penal Department of said institution shall be ready for the reception of inmates, as aforesaid, the Governor may, as to any or all of the female convicts who may then be confined, as aforesaid, in said State Prison, instead of making an order for their transfer, commute the sentences of said convicts or any or either of them by substituting imprisonment in the Penal Department of said institution for the residue of the term for which they may have been respectively sentenced or for any less period of time.

8270. (6177.) *Sentence of Female Convicts.* 16. After the Penal Department of said institution shall have been proclaimed open for the reception of female convicts, as hereinbefore provided, it shall not be lawful for any court to sentence any female convict to the State Prison upon the conviction of any crime, but thereafter every female convict shall be sentenced to imprisonment in the Penal Department of the institution created by this act; and the term of imprisonment for which such female convict may be sentenced shall be any period of time for which she might, on conviction, have been sentenced to the State Prison at and prior to the passage of this act.

Diminution of time for good behavior. Sections 8238-8241.

The effect of this section is to modify previous statutes relating to the sentencing of women or girls to the State Prison. *Walton v. State*, 88 Ind. 9.

(Acts 1899, p. 511. In force April 1, 1899.)

8270a. *Indeterminate Sentences and Paroles.* 1. That the provisions of an act entitled "An Act concerning the manner of procedure in the trial of certain felonies, and prescribing punishment therefor, appointing a commission on parole, and authorizing it to make rules for the government therefor, approved March 8, 1897," shall apply in the case of every girl and woman, fifteen years of age and over, hereafter tried for felony, in the State of Indiana, except as may be hereinafter provided.

See Section 1906a and Sections 8230-8232 for the act of 1897 referred to in this section; and see Section 8270e for attempted amendment of this section.

8270b. *Sentence to Woman's Prison.* 2. Instead of sentencing girls or women to the State's Prison, courts shall, in case of a verdict or finding of guilty, sentence such criminals to the Woman's Prison.

8270c. *Commissioners of Parole.* 3. The superintendent of such prison, the Board of Managers, the chaplain and the physicians shall constitute the Board of Commissioners of Parole for such prison. The superintendent shall be the president of such board and the clerk of such prison shall be the clerk of said board.

8270d. *Agent, Appointment.* 4. The superintendent of such prison shall appoint the agent for such prison and the superintendent shall generally discharge all duties and exercise all authority conferred by said act of 1897 upon prison wardens.

(Acts 1901, p. 320. In force March 9, 1901.)

8270e. *Amendment to Act of 1899.* 1. That Section 1 of "An Act supplemental to an act concerning the manner of procedure in the trial of certain felonies and prescribing punishment therefor, and appointing a commission on parole and authorizing it to make rules for the government therefor, approved March 6, 1899," be amended by adding thereto the following words:

That the provisions of said act shall apply in the case of every girl and woman fifteen years of age and over, hereafter tried for felony or who may now be serving a fixed term of imprisonment, except as may be hereinafter provided.

See Sections 8270a for section said to be amended by this section, and there being doubt as to the validity of this section, it is set out as an independent act.

(1869 S., p. 61. In force May 13, 1869.)

8271. (6178.) *When Sentenced to State Prison.* 17. If at any time the Penal Department of said institution shall become so filled with female convicts that no more can be received therein for the time being, or until it shall be enlarged or relieved of some of its inmates, then the Governor shall proclaim the fact; and after such proclamation any court may sentence a female convict over the age of fifteen years to the State Prison, to the same extent and in the same manner as if this act had never been passed, and any female convict so sentenced, at any time thereafter, when she can be received in the Penal Department of the institution created by this act, maybe transferred thereto, and imprisoned therein, in either of the modes hereinbefore provided for.

8284. (6189.) *Escape.* 28. Any person who may be committed to or confined in either department of said institution, and who may escape therefrom, may be arrested and returned to said institution by any officer or citizen on the written order or request of the superintendent or Board of Managers.

(Acts 1889, p. 322. In force March 9, 1899.)

8298. (E. S. 2000.) *Insane—Transfer.* 4. If any girl committed to the "Girls' Reform School," or any woman committed to the "Woman's Prison," shall, while therein, become insane, such woman or girl may be transferred to the "Asylum for the Insane," under the same rules and modes of procedure as those prescribed for other insane persons.

Admission to insane hospitals, Sections 3209-3249.

(From General Appropriation Act, 1905.)

(H. 431. Approved March 7, 1905.)

For the Industrial School for Girls and Woman's Prison at Indianapolis—Regular.

Maintenance, thirty-eight thousand dollars; repairs, three thousand dollars; discharge, clothing and parole, seven hundred dollars; library, three hundred dollars Specific: Repairs on heating plant, six thousand dollars.

(Acts 1905, page 106.)

An Act to amend section 13 of an act entitled "An Act authorizing and providing for the separation of the Indiana Industrial School for Girls from the Womans Prison, for the purchase of land and construction of buildings for the Industrial School for Girls, for appointing commissioners and making appropriations therefor, defining the plan to be pursued, authorizing the appointment of a Board of Managers and a Superintendent for the Girls Industrial School, repealing all laws in conflict therewith and declaring an emergency," approved March 11, 1903.

(S. 64. Approved March 1, 1905.)

Amendment. Section 1. Be it enacted by the General Assembly of the State of Indiana, That Section 13 of the above entitled act be amended to read as follows:

Industrial School for Girls—Separation—Appropriation.

Section 13. There is hereby appropriated from the State treasury out of any funds not otherwise appropriated \$235,000.00, or so much thereof as may be necessary for the erection and equipment of the buildings and expense of the commissioners authorized by this act: \$75,000 of which shall be available on and after June 1, 1905, and the remaining 160,000 shall be available on and after November 1, 1905. The said buildings shall be erected and equipped and made ready for occupancy as soon as practicable, and when completed turned over to the Board of Managers of the Indiana Industrial School for Girls provided for in this act. When this shall have been done by said commissioners and final settlement made with the Auditor of the State, then the duties of said commissioners shall end.

(From General Appropriation Act, 1907.)

(H. 713. Approved March 16, 1907.)

For the Woman's Prison at Indianapolis—Regular.

Maintenance, fourteen thousand dollars and one hundred and fifty dollars per capita per annum for each person actually present over a daily average of fifty-six inmates each month, which sum is hereby appropriated out of any money in the treasury not otherwise appropriated; said excess amount to be approved by the Board of State Charities. Repairs, three thousand dollars.

(Acts 1907, page 139.)

Section 1. Be it enacted by the General Assembly of the State of Indiana. That the Board of Trustees of the Indiana Industrial School for Girls and the Indiana Woman's Prison shall hereafter consist of four trustees. One additional trustee shall be appointed by the Governor to each of said boards as the same are now constituted, within thirty days from the taking effect of this act, and each of such additional trustees so appointed shall serve for a term of four years. The names of said Board of Control of the Indiana Industrial School for Girls and the Indiana Woman's Prison shall each be known hereafter as the Board of Trustees of said institution, respectively.

Sec. 2. The name of the Indiana Industrial School for Girls is hereby changed to the Indiana Girls' School.

Sec. 4. The Board of Trustees of the Indiana Woman's Prison and of the Indiana Girls' School shall consist of women only. No other qualifications, except fitness, and those hereinbefore specified, shall be considered in the making of such appointments. Each member of any such Board of Trustees hereafter appointed shall qualify by giving a bond with surety in the sum of ten thousand dollars to the approval of the Governor. At the meetings of said boards following the appointments provided for in Section one (1) of this act, they shall proceed to elect a president, vice-president, treasurer and secretary, and thereafter annually the organization shall be at the April meeting of each of said boards. Such treasurer shall qualify by executing a bond in the sum of fifty thousand dollars, with surety to the approval of the Governor.

Sec. 5. Such trustees shall receive as compensation three hundred dollars a year each and their reasonable expenses, not to exceed one hundred and twenty-five dollars a year each, which shall be paid quarterly as other expenses of the institution are paid.

Sec. 7. In the purchase of all supplies that enter into the maintenance of any of the institutions covered by this act, it shall be the duty to invite competitive bids through sealed proposals to the president of the board of each institution, and the lowest and best responsible bidder shall be awarded the contract, and the same provision shall apply to the construction and equipment of all buildings for any such institution. Public notice of such bids shall be given by publication in the two leading newspapers in the county where such institution is located, and otherwise if considered beneficial. If such board deems it advisable and in the interest of economy to buy certain articles in quantity to last for a longer period, it shall have the right to do so. Such fact, however, shall be particularly stated in the notices. Blank bids shall be furnished for all applicants, but bids shall not be rejected because not contained on such form. Any or all bids may be rejected.

CHAPTER 135.

An Act creating a correctional department of the Indiana Woman's Prison; providing for the location, government and maintenance of the same; prescribing who shall be confined therein and the manner of transferring inmates thereto and making an appropriation.

(S. 240. Approved March 9, 1907.)

Woman's Prison—Correctional Department.

Section 1. Be it enacted by the General Assembly of the State of Indiana, That there is hereby established a house of correction for female delinquents, to be known as the correctional department of the Indiana Woman's Prison. Such department shall constitute a branch of said prison and shall be under the control and management of the same officers as are by law authorized (by law) to control and manage said woman's prison: and the inmates thereof shall be supported as are other inmates of said woman's prison.

Separate Department.

Sec. 2. The correctional department for women shall be kept separate and distinct from said woman's prison, and so far as practicable, there shall be no association or communication permitted between the inmates of said correctional department and the other inmates of said prison. After the removal of the inmates of the Indiana Industrial School for Girls from that part of the building

now occupied by them, such part of the said building shall be remodeled for the uses of said correctional department, and thereafter said part shall be occupied and used exclusively for the purposes of such department.

Female Delinquents—Application of Act.

Sec. 3. All female delinquents who are above the age of commitment to the Indiana Industrial School for Girls, and who are not required by law to be sent to the Indiana Woman's Prison, shall, upon conviction of the violation of any law or ordinance, the punishment for which now consists of confinement in any county jail or workhouse, be sentenced to such correctional department of the woman's prison. Any female delinquent not subject to a commitment to said Industrial School for Girls or to said Woman's Prison, who shall be fined for such violation of any law or ordinance so committed by her, and who, upon failing to pay or replevy such fine and the costs of prosecution, would otherwise be committed to any county jail or workhouse to lay out such fine and costs, shall be committed to said correctional department of the Indiana Woman's Prison; and all laws relating to confinement of female delinquents for failure to pay fines and cost of prosecution shall apply to such confinement in said correctional department, except as otherwise indicated herein: Provided, however, That the imprisonment adjudged is ninety days or less, or where the fine and costs assessed, when not paid or replevied, would not require the defendant to serve more than thirty days in a jail or workhouse, it shall be left to the discretion of the court as to whether said defendant shall be committed to said correctional department of the Indiana Woman's Prison, or to the jail or workhouse of the county in which said case is tried. After said correctional department is prepared to receive inmates, the Governor shall at once make public proclamation of such fact.

Transfer and Transportation—Costs.

Sec. 4. The transfer and transportation of all persons now or hereafter subject to confinement in said department, shall be made in such manner, at such time and by the same officers as by law provided for the transfer and transportation of female prisoners to the Indiana Woman's Prison; and all costs and expenses incident to such transfer and transportation shall be paid by the counties in which said persons are sentenced to such correctional department.

Employment and Instruction.

Sec. 5. Persons committed to such correctional department as above provided shall, during their confinement therein, be employed in such industry or industries as the Board of Trustees of said Woman's Prison shall deem best. In addition to said employment they shall be given such instruction and training, mental, manual and moral, as shall be found possible. Such discipline, employment and instruction shall be conducted on reformatory principles, to the end that the inmates of said department shall thereby be rendered intelligent, industrious and useful citizens of the State. All other laws now existing and not in conflict with this act, so far as they are applicable shall apply to the department created herein.

Trustees—Work and Materials.

Sec. 6. The Board of Trustees shall be and are authorized to provide for such work and labor in such correctional department of said woman's prison established by this act as may be found practicable, to purchase any and all material and appliances necessary and proper therein, and to adopt and enforce all necessary rules and regulations for the government and control of such prisoners, as in the judgment of such board may be proper and expedient.

Appropriation.

Sec. 7. There is hereby appropriated from the funds in the State treasury not otherwise appropriated, the sum of \$40,000.00. to defray the expenses of remodeling the west wing of said woman's prison for the purposes set forth herein; and to purchase and install a sufficient light and power plant for use in said woman's prison, including said correctional department. Said appropriation shall be immediately available upon the taking effect of this act.

FOURTH ANNUAL REPORT

OF THE

STATE ENTOMOLOGIST

OF INDIANA

BENJAMIN W. DOUGLASS
1910-1911

INDIANAPOLIS:
WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING
1912

THE STATE OF INDIANA,
EXECUTIVE DEPARTMENT,
DECEMBER 5, 1911.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,
INDIANAPOLIS, December 27, 1911.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,
Auditor of State.

DECEMBER 27, 1911.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,
Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, December 27, 1911.

L. G. ELLINGHAM,
Secretary of State.

Received the within report and delivered to the printer, December 27, 1911.

ED D. DONNELL,
Clerk Printing Board.

LETTER OF TRANSMITTAL.

OFFICE OF STATE ENTOMOLOGIST,
BENJAMIN W. DOUGLASS.

INDIANAPOLIS, October 31, 1911.

HONORABLE THOS. R. MARSHALL, *Governor of Indiana*:

My Dear Sir—It is my pleasure to present herewith the fourth report of this department. The report deals with the various activities of the department during the past year, and in addition discusses in detail the subjects of Peach Growing in Indiana, The Scale Insects of Indiana, and The Pests of City Shade Trees. A small part of the report is devoted to the subject of bee keeping in Indiana.

The entire report is the work of the writer and, except in the few cases noted, all of the illustrations have been made in this department. The illustrations presented are considered necessary for a proper understanding of the text.

Respectfully,

BENJAMIN W. DOUGLASS,

State Entomologist.

FINANCIAL STATEMENT.

1910-1911.

Salary—

Benjamin W. Douglass	\$2,500 00
Edna McCormack	800 00
Elsie A Dickson	900 00
Frank N. Wallace	800 00
Everett E. Smith	1,200 00
Daniel W. Erbaugh	1,075 00
George S. Demuth	1,000 00
Harry F. Dietz	356 67
L. S. Hasselman	92 00
Harold Morrison	250 00
Chas. H. Baldwin	281 00
Grace Alexander	206 25
Frank B. Wade	22 50
Clifford L. Bartlett	130 00
Office expense	322 64
Express	711 44
Telephones and telegrams	132 89
Postage	700 00
Hotel	1,094 55
Livery	510 95
Transportation	1,217 32
<hr/>	
Total	\$14,303 21
Appropriation	\$15,000 00
Expenditure	14,303 21
<hr/>	
Returned to State	\$696 79

An itemized account of all expenditures is on file with the Auditor of State.

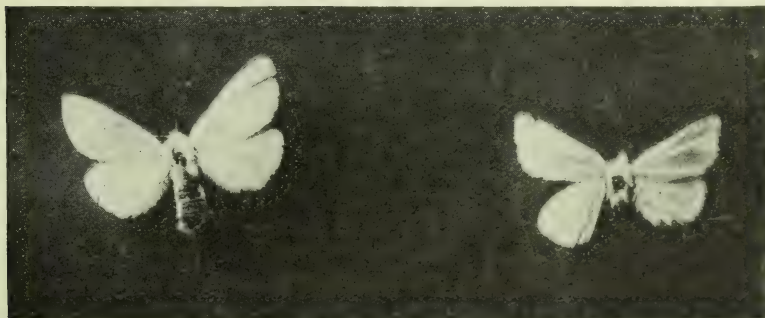
INTRODUCTION.

WORK OF THE DEPARTMENT.

During the past year the work of the department has been carried along the usual branches of nursery, orchard and bee inspection.

The orchard and nursery inspection necessitated as usual considerable laboratory work in the way of preparing and identifying specimens. The suggestion has been made that this part of the department's work could be done at Purdue University. Knowing the conditions as I do, I do not hesitate to say that attempt to separate the work as it is now established would be to interfere with a system that has proved to be both economical and efficient. Many specimens are sent in to be identified. These come from the field inspectors and from private individuals all over the State. It is often imperative that the identification be made immediately as a delay would result in a loss of time, money and departmental efficiency.

The laboratory work of the past year was productive of good results in many respects. One of the most notable things was a bit



BROWN TAIL MOTHS.

of work that in itself was but an incidental item but may possibly prove to be the most important to the State. This was the identification of the red-headed fungus, a parasite of San Jose scale. This fungus is well known in some of the Southern States and for the past three years I have been trying to introduce it and its ally the

“black head fungus” into this State. Quite by accident the red-headed fungus was found by one of the deputies, Mr. Frank Wallace, in Seymour, Indiana. Cultures from these specimens were made and tubes of the fungus were sent out during the spring and summer. At this writing it is still too early to know whether the fungus has taken hold in any case, and even if it has it will have to



INSPECTING NURSERY STOCK FROM FRANCE.

stand the test of winter weather to determine whether or not it will be able to live in this climate. The fact that the fungus was found out of doors at Seymour is an indication that the fungus will be adaptable to southern Indiana at least. About three years ago I found another fungus growing on San Jose in Spencer County, but after extensive experiments we were forced to abandon it as we could not get it to produce spores under cultivation.

Another instance of the value of the laboratory work is to be noted in the fact that it was here that the disease known as apple blotch was first identified in Indiana. The first published account of this disease is in my second report. The facts in the case hardly support the charge that the work of this laboratory duplicates the work of any other State department.

During the year a great deal of orchard inspection work was done and a number of demonstration orchards were conducted by the department. Lack of space precludes a detailed account of all

of these orchards, but a few are especially notable. All of the following are in central or northern Indiana, the southern Indiana orchards having failed during the past season.

At Culver the department managed the orchard of Walter Vonnegut, consisting of 50 trees. These trees were pruned early in the spring and were sprayed four times. Every tree in the orchard



A STORAGE CELLAR AT A NURSERY.

An argument against spring planting.

bore to its full capacity and many trees had to be heavily thinned to prevent breaking. One tree of Stark yielded 40 bushels of fine apples. The Fameuse averaged more than 95 per cent. perfect, and other varieties did equally well. This orchard attracted a great deal of attention in the north part of the State.

Dr. Reeder furnished his orchard at Laporte for experimental purposes and in a letter he says, "The results on the orchard are remarkable. Better than the 95 per cent. perfect that you promised me. With the exception of the cheek trees you can go to any of my trees in the dark and pick and eat an apple without fear of getting a worm."

Perhaps the most remarkable results were had at the orchard of L. V. Hopkins at Maxwell, Indiana. This was a mixed orchard of different varieties and near it was a small orchard of peaches. The peach trees bore for the first time this season. An account of winter

spraying to hold back the peach buds is published elsewhere in this report. The apples gave remarkable yields on all varieties. All of the sprayed trees were full of perfect fruit. The check trees had so little fruit that it was not possible to make a fair comparison.



PILE OF BRUSH REMOVED FROM A SMALL HOME ORCHARD.

It was necessary to go to some neglected orchard in the neighborhood in order to get a good idea of what had actually been accomplished on Mr. Hopkins' place.

One branch of the nursery inspection consists of the examination of all nursery stock that enters the State from abroad or from the States of Missouri or Iowa. In the past year we have examined 2,075,760 trees in the course of this work. Since this work was started three years ago we have found that the quality and condition of the foreign stocks have materially improved. European growers have learned to have more respect for the American planters and are not quite so ready to foist anything upon them that they may chance to have.

An account of the bee inspection work is given under the account of bee keeping in Indiana.

The following list of nurserymen includes all that have received certificates up to the date of this writing, October 27. If there are any familiar names missing it means that those growers have either gone out of business, been refused certificates or have neglected to file necessary affidavits in this office:

LIST OF INDIANA NURSERYMEN.

Abraham Bros., Martinsville, Ind.
Alstott, J. M. & Son, Corydon, Ind.
Anglin, J. K., Etna Green, Ind.
Armstrong, Andrew, Odon, Ind.
Baldwin, T. A., Oxford, Ind.
Barnard, A. J., Westville, Ind.
Barnes, M. & Company, College Corner, Ohio.
Bell, C. A., Borden, Ind.
Bennett, A. S., Lafayette, Ind.
Billingsley, Samuel, Greenwood, Ind.
Bird, E. E., Depauw, Ind.
Brown, James, Borden, Ind.
Brown, Mercer, Spiceland, Ind.
Buck, H. F., Elberfeld, Ind.
Burkhart, H. A. & Son, Southport, Ind.
Burton, S. H., Washington, Ind.
Cain, W. D., Shelburn, Ind.
Callahan, D. W., Pekin, Ind.
Capitol City Nursery Co., Greenfield, Ind.
Card, Phineas A., Greenfield, Ind.
Cathcart, Alva, Bristol, Ind.
Cochran, L. B., Greensburg, Ind.
Collins, Lamar, Underwood, Ind.
Cosner, Alfred, Stilesville, Ind.
Crawford, J. D., Plymouth, Ind.
Cunningham Nursery Co., Rising Sun, Ind.
Davis, George W., Brazil, Ind.
Dean, H. P., Indianapolis, Ind.
Dickson, C. E., Bloomfield, Ind.
Dutter, Jerry, Angola, Ind.
Egloff, Joe, St. Meinrad, Ind.
Flory, A. E., Logansport, Ind.
Fonts, Edward, Borden, Ind.
Gaar, Milton H., Cambridge City, Ind.
Gaar, W. H., Germantown, Ind.
Gainey, S. C., Doans, Ind.
Gallamore, W. F., Bloomfield, Ind.
Garber, D. M., Pierceton, Ind.
Garrett, F. B., Burns City, Ind.
Gast, R. N., Akron, Ind.
Girton, L. R., Bristol, Ind.

Goehler, Albert, Urbana, Ind.
Graham, Charles F., Jeffersonville, Ind.
Graham, John K., New Albany, Ind.
Gray, Alva, Pekin, Ind.
Hanka, Henry, Borden, Ind.
Hazen, Smith, Hatfield, Ind.
Heller Brothers Company, New Castle, Ind.
Henby, J. K. & Son, Greenfield, Ind.
Hill, E. G., Company, Richmond, Ind.
Hobbs, C. M. & Sons, Bridgeport, Ind.
Hofreiter, Andy, New Harmony, Ind.
Hopkins, L. V., Maxwell, Ind.
Hurrow, B. W., Butler, Ind.
Hurst, Louis, Pekin, Ind.
Indiana Experiment Station, The, Lafayette, Ind.
Indianapolis Forest Nursery Co., Greenfield, Ind.
Jackson, Ham, Borden, Ind.
Jarrett, J. A., Montpelier, Ind.
Jones, E. E., Plymouth, Ind.
Keel, Thomas, Westville, Ind.
Keplar, S. W., Pulaski, Ind.
Knaub, Ben, North Vernon, Ind.
Krider, Vernon, Middlebury, Ind.
Lewis, D. C., Fairmount, Ind.
Lucas, J. W., Bloomfield, Ind.
McClaren, Charles A., Corydon, Ind.
McClaren, Joe T., Corydon, Ind.
McCormick & Osborn, Burns City, Ind.
Mason, B. F., Martinsville, Ind.
Meeker, H. H., Crown Point, Ind.
Meredith, Frank, Koleon, Ind.
Milhous, Jessie, Butlerville, Ind.
Miller, Phillip, Borden, Ind.
Mills, Grant, Redkey, Ind.
Moffett, Frank, Carmel, Ind.
Moyer, G. N., Laketon, Ind.
Murr, Asbury, Depauw, Ind.
Murray, A. M., Goshen, Ind.
Nation, Charles, Gilead, Ind.
Neet, G. W., Valparaiso, Ind.
Noble, J. M., Sellersburg, Ind.
Northern Indiana Nursery Co., The, Waterloo, Ind.

Nufer, Alfred, Bremen, Ind.
Osborn, Alfred, Odon, Ind.
Osborn, Arthur, Spiceland, Ind.
Overman, R. J., Danville, Ind.
Palmer, Fred L., Indianapolis, Ind.
Patterson, R. T., Bloomfield, Ind.
Peirce, A. D., Greenfield, Ind.
Portland Nursery Co., Portland, Ind.
Preble, A. C., Marion, Ind.
Quillen, Charles, Monrovia, Ind.
Randolph Nursery Co., W. Lafayette, Ind.
Ragle, Amos, Elnora, Ind.
Rape, T. C., Farmland, Ind.
Reed, W. H., Hanover, Ind.
Ripperdan, Lee, Valley City, Ind.
Robb, G. W., Borden, Ind.
Rogers, Sig, Bloomfield, Ind.
Roerk, B. F., Borden, Ind.
Seibert, A. B., Rochester, Ind.
Shields Brothers, Charlottesville, Ind.
Shields, Thomas & Son, Anderson, Ind.
Sleeper Bros., Fowler, Ind.
Sloan, James, Washington, Ind.
Smith, Joseph E., Muncie, Ind.
Smith, Orin, Butler, Ind.
Snoddy Nursery Co., The, Lafayette, Ind.
Stout, Wilbur C., Mooresville, Ind.
Teas, R. Y. & Son, Centerville, Ind.
Terrell, Grover C., Pekin, Ind.
Thomas, F. G., Battle Ground, Ind.
Young, John J., Odon, Ind.
Walker, F., New Albany, Ind.
Walton, William, Laporte, Ind.
Weaver, Ira, Middlebury, Ind.
Weber, Carl, Greenfield, Ind.
Wines, William H., Akron, Ind.
Wood, W. C., Borden, Ind.

PEACH GROWING IN INDIANA.

When Omar Khayyham sang about his "Book of verses underneath the bough" I have small doubt that the bough he referred to was the branch of a peach tree. In the first place, the peach is a native Persian, and of all fruits the one best calculated to appeal to the fancy of a poet. Like the apple, the peach has come to us from other lands, and has found here not only congenial soil and climate, but intelligent growers who have done much to develop new varieties. We find today that this foreigner is completely naturalized and occupies no mean place in our American horticulture.



A WELL CULTIVATED ORCHARD.

In Indiana, peach growing was an important industry more than two decades ago, large areas being devoted to this purpose. At that time, there were extensive orchards on the hills bordering the Ohio River and for a time they were quite profitable. The growers of that period were unfamiliar with the modern methods of fruit growing and most of the old orchards are now almost forgotten. I have talked with many of the former growers and have visited most of the few orchards that are still standing, and I am

convinced that peach growing in the southern counties can be made far more successful than it was even in the days of the "big orchards."

Most of the old growers attribute their failure to bad luck when, as a matter of fact, it was simply bad management and ignorance of the proper methods of handling this crop. It is probable that Peach Yellows was the most serious drawback to the early orchards as it is to those of the present time. No one can deny, too, that



A TREE IN THE DEAN ORCHARDS IN SOUTHERN INDIANA THREE YEARS OLD.

Peach Yellows is bad enough, but it is not hopelessly bad if the proper steps are taken to control it. The early planters of peach trees in Indiana were of the type that sets out an orchard and allows it to take care of itself, gathering the crops as long as the trees may remain healthy and then hopelessly throwing up their hands as soon as some strange disease makes its appearance.

The men who will be successful in peach growing in Indiana or in any other State, from now on, will be for the most part young men who are willing to adopt the new methods of peach culture and to apply modern methods throughout their work. Men who undertake this work in the proper spirit will have before them a field of tremendous profit and, at the same time, they will find that they are engaged in a most delightful work. It is probable that the man who is looking for a location for a peach orchard will ask, first

of all, about the climate, and it is well that he should for the peach is not a fruit that can be grown in such wide climatic conditions as can the apple. During the past few years the peach crop has been far more certain throughout Indiana than has the apple crop, and with proper care there is no reason in the world why the peach orchard should not yield a crop practically every year.

The chief difficulty in the southern part of the State has been that the winters have not been cold enough to retard the develop-



PEACH ORCHARD CULTIVATED IN CORN.

ment of the peach bud and as a result the buds started out too early in the spring and were caught by the spring frosts. Failures in the extreme north part of the State have been due largely to severe weather in the winter. I would not undertake to grow peaches in any climate where the winter temperature often fell under 5 degrees below zero, although the peach has been known to withstand a temperature of 20 degrees below zero. This, however, is entirely too low a temperature for the commercial peach grower to feel comfortable about. Many peach crops have been lost in the central part of the State by the warm weather in December starting the buds and developing them to a tender stage so that they were readily killed by the severe weather later in the winter.

During the past season I conducted some experiments in an effort to prevent this winter injury. The work was done at several different peach orchards in the central part of the State and the

results were sufficiently encouraging to justify some mention at this time, although they are by no means conclusive. The trees that we experimented with were sprayed with whitewash in December and the spray was repeated as soon as it was worn off or washed off in the rain. The idea was that the white coating of the trees would

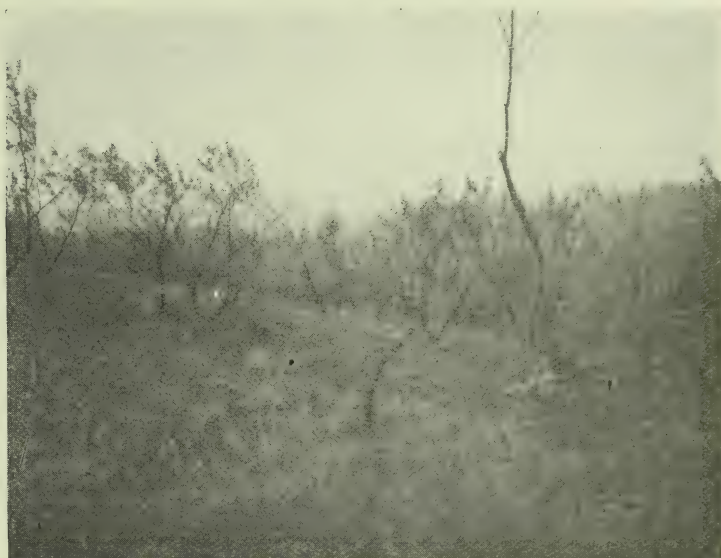


YOUNG PEACH ORCHARD CULTIVATED BY GROWING A CROP OF POTATOES.

reflect the light, that the heat would not be absorbed by the branches and that, accordingly, the buds would fail to start. The results showed that the work was correct in theory and there is no reason why it should not be practiced extensively. The peach trees that were whitewashed were retarded to such an extent that they blossomed from ten days to two weeks later than the ones that were not whitewashed. The trees that were whitewashed set nearly 100 per cent. more fruit than the trees that were left for checks. A careful count showed that both the sprayed and the unsprayed trees had to start with about the same number of living buds, so that the work represented a gain of practically 100 per cent. in the possible peach crop.

A different set of weather conditions might change these results materially, so that under some circumstances, the whitewashing might positively be a bad thing. For instance, the buds might be retarded and open just at a critical time and be caught by a late

frost, while the trees that were not sprayed might have passed the critical period and the young peaches be left unharmed. Nevertheless, I believe that the practice of whitewashing of the peach trees is of sufficient value that it should be further experimented with in this State.



THE RESULT OF NEGLECT IN THE PEACH ORCHARD.

I have never tried the use of smudge pots on peaches, but the few trials that I have given this practice on apples and other orchard fruits do not lead me to believe that it will be of great value Indiana. Smudge pots in the apple orchard will be valuable one year in ten and as a result the orchardist must keep up this investment for the other nine years for use during the possible ten. I doubt very much whether the results will pay for this long time investment. This, however, is still altogether in the experimental stage and time may develop that I am wrong in my conclusions regarding the value of artificial heat in the orchard. Aside from affecting the certainty of the crop, the climate has a great deal to do with the quality of fruit, particularly with the quality of peaches.

I am aware that practically every locality in Indiana is just now claiming to grow the finest peaches that can be produced any place; but from my personal observations I would say that the best natural peach districts in this State were along the Ohio River; in

Brown County and in one or two sections in the extreme north part of the State. I am designating these three different localities with the full knowledge that there are many other localities where peach growing has been and can be successfully carried on, and it is probable that I will make some mention of these special localities from time to time throughout this report.



PERFECT ORCHARD CULTIVATION IN THE BROWN COUNTY DISTRICT.

The second consideration in locating a peach orchard is that of soil. The peach tree is somewhat particular as to the character of soil in which it grows. It is not like the apple in this respect. For the most part, peaches seem to do best on sandy soil, and on soil that is well drained. In the southern part of the State the sandy hill tops have been known as the best localities for peach orchards for more than a generation. In the extreme northern part of the State some of the finest peaches are produced on sandy soil so light in character that it is absolutely necessary to maintain an orchard cover throughout the winter to prevent the soil from actually blowing away.

In one peach orchard that I saw in the northern part of the State the trees had been planted and had been mulched close around the tree. The balance of the soil had been left unprotected and as a result the small tree, after the first winter, was left standing on the top of a firm pedestal of sand. Such a light soil is obviously



A BEARING ORCHARD IN THE BROWN COUNTY DISTRICT.

This place has had but little care and still it has produced a profitable crop each year since it started to bear. In this section trees begin to bear when three years of age.

deficient in humus, but this quality can be readily imparted by the growth of proper cover crops.

As a rule, heavy clay soils need to be avoided. The orchard should be located on land which is rolling but is not too steep to allow of thorough cultivation. The soil must be well drained, either naturally or artificially, and if it is not sufficiently fertile, the necessary plant food must be supplied, preferably in the form of commercial fertilizer. It is frequently necessary to fertilize a peach orchard that has come into bearing, as the peach crop tends to exhaust certain elements in the soil. Chief among these perhaps, is potash, which can readily be returned to the soil through the medium of commercial fertilizer. As a rule, I would avoid the use of animal fertilizer in orchards of any sort.

SELECTING THE STOCK FOR PLANTING.

Peach trees are propagated in the nursery by the process known as budding. That is, the seeds are planted in the rows where the nursery trees are to be grown, and when the young seedlings are



THREE YEAR OLD ORCHARD IN JEFFERSON COUNTY.

about two feet high they are budded near the ground with buds taken from trees of the sort that it is desired to propagate. These buds lie dormant until the following year, when the seedling top is cut off and the bud of the desired variety allowed to grow. This

bud grows for one season and produces what we call a normal peach tree. These trees are to be planted at the end of the first season's growth, and any stock offered by the nurseries which is more than one season old should be rejected by the planter.

Older peach trees do not bear transplanting well and there is nothing to be gained by using them. One year old peach trees should measure not more than 5 feet in height and should be about five-eighths of an inch in diameter near the ground. Very frequently nurseries supply a larger size than this, but the larger sizes are not desirable, owing to the fact that they do not stand transplanting so readily, and as a rule do not make so desirable a tree in the orchard. Special care should be given to an examination of the roots before the trees are planted. The peach is subject to crown gall, the same as the apple, and any evidence of this disease on the trees should be carefully watched for. The broken roots should be trimmed off and any unusually long roots should be shortened in.

PLANTING. .

There has been a great deal of discussion as to the proper time for planting trees. There are arguments in favor of both spring and fall plantings, but, all things considered, I believe that the best results usually follow the plantings in the spring of the year. There is only one serious objection to this, however. The nurseries, particularly the larger ones, are inclined to dig all of their stock in the fall of the year and store it in their cellars throughout the winter. I have seen nursery cellars piled high with dormant stock and with the roots of the trees about as dry as it is possible for them to get. I do not see how such stock can possibly be expected to live. When it is taken out by the nurserymen in the spring of the year it has every appearance of being normal and very often the roots are puddled in fresh mud before being shipped. This gives them the appearance of having been recently dug from the nursery. The planter will suppose that he is getting normal nursery stock and after giving his trees the **best** care and attention, he will be surprised that so many of them fail to grow.

I am convinced that the practice of fall digging and winter storage has a great deal to do with many of the failures that I have seen throughout Indiana. I believe that it would be a far better plan for the planter to buy his stock in the fall of the year and carefully heel it in himself and then plant it in the permanent orchard the following spring. Where the nurseryman can be de-



A PEACH CROP IN THE FAMOUS BROWN COUNTY DISTRICT.

In few other sections can peaches be grown with so little care.



AN OLD PEACH ORCHARD THAT HAS BEEN KEPT IN A BEARING CONDITION BY REPEATED HEADING BACK.

pendent upon to dig the stock in the spring of the year, I would prefer to let it remain standing in the nursery until the planting time.

The soil in the orchard should be ploughed deep and, when the land is level, should be left exposed during the winter previous to the planting of the orchard. The trees should be planted, for a permanent peach orchard, about 20 feet apart each way. Separate holes must be dug for each tree. These holes should be dug deep enough and wide enough to readily accommodate the roots and to allow the tree to stand a trifle deeper than it stood in the nursery.

The best means of locating the exact place for the tree to stand is to use a wire, stretched the full length of the row in the orchard. At intervals of 20 feet, a loop of brass wire can be soldered to the main wire or a band of white paint can be applied at these intervals. The paint is better because it allows the wire to be handled or coiled more easily. When one row of trees has been planted, the wire is then moved over 20 feet and the next row is planted. In this way, the trees are absolutely kept in line and are checked in both directions.

A few growers prefer to plant their trees 15 feet apart in a row and place the rows 30 feet apart. This is a good plan for a permanent orchard. Such a system of planting allows the planter to grow more intercrop between the trees and renders the cultivation a little bit easier. When the trees become crowded as they mature, it will be easy to cut out every other tree in the row, thus leaving the permanent orchard 30 feet apart. This distance is not too great for the well-cared-for peach orchard.

The old idea that the peach orchard had to be destroyed at the end of the tenth year is now somewhat out of fashion in Indiana. I know of orchards in the southern part of the State that have received intelligent care and are now about twenty-five years of age.

I know of another very successful peach orchard in the Brown County district that was originally planted as a mixed orchard of peaches and apples. At the end of the twelfth year, the owner found that his apple trees had yielded him no commercial crops, while his peach trees had been in successful bearing for several seasons. As he saw it, he could not afford to sacrifice his peaches for a problematical crop on his apple trees. Consequently, the apples that were originally intended for the permanent orchard were destroyed and his peach trees were left. During the past two seasons, his wisdom has been fully demonstrated by the very

excellent peach crop which he has gathered. This orchard is now one of the best I know of in the State and is a model for growers in many respects.

Cultivation in the peach orchard is absolutely necessary from the time that the trees are planted. No other tree requires more thor-



UNCULTIVATED BLOCK AT MASON'S.



A CULTIVATED BLOCK AT MASON'S ORCHARD.

ough culture than does the peach, and cultivation will do more for the prevention of fungus diseases on the peach than almost anything that I know of. It is entirely practical to grow other crops between the rows of trees before the trees come into bearing. Perhaps the best crops for this purpose are those that are low growing, although corn might be grown the first season, after the planting of the trees. I would, also, suggest that small fruits be grown between the rows of peaches. Mr. B. F. Mason has made a great success of his peach orchard by the planting of small fruit plants between the rows of peach trees.



SMALL FRUITS GROWING BETWEEN THE ROWS AT MASON'S ORCHARDS.

The accompanying illustration will give some idea of the results which may be expected from thorough cultivation of the young peach trees. The two photographs were made from the same standpoint, the camera simply being reversed to make the second photograph. In the first case, the trees were left absolutely with no cultivation from the time that they were planted. In the cultivated plat, the trees were planted with raspberry bushes and strawberries between the rows. These small fruits were thoroughly cultivated from the time that they were set out. As the pictures indicate, the uncultivated portion is practically worthless today, while that which has received care is an excellent bearing peach orchard of unusual size for its age, which is four years. These photographs were made on Mr. Mason's farm.

Another grower who has thoroughly demonstrated the value of cultivation in the peach orchard is Mr. L. V. Hopkins of Maxwell, Ind. Three years ago Mr. Hopkins planted an orchard of mixed varieties and the larger part of the orchard has been cultivated from the time that it was set out. Another small corner of Mr. Hopkins' place was left without any cultivation at all, and the accompanying photograph gives some idea of the difference between the cultivated orchard and that portion which was neglected. Mr. Hopkins has found that navy beans and tomatoes make excellent intercroops in his peach orchard. Both of these crops have been



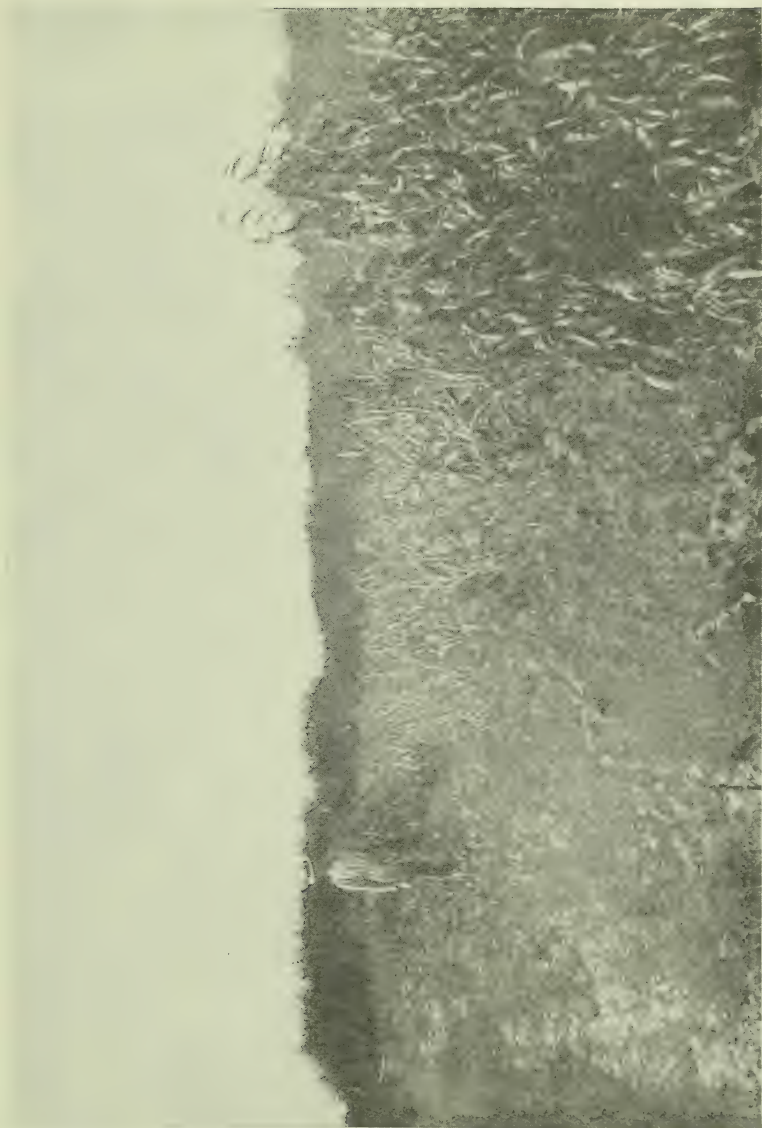
THE WELL KEPT ORCHARD OF B. F. MASON.

planted during the past three seasons and the results of the cultivation of the intercroops have been sufficient to cover all the cost of cultivation and to yield some profit besides. The season of 1911 was the third growing year for Mr. Hopkins' trees and some of the varieties yielded as much as one-half bushel per tree. In the uncultivated part, many of the trees have not only failed to yield any fruit, but many of the trees are dead, and those that remain are simply stunted scrubs.

As soon as the peach orchard comes into bearing a system of permanent cultivation should be adopted, and all attempts to grow commercial crops between the rows should be abandoned. An excellent system to follow in regard to permanent cultivation in the



CULTIVATED BLOCKS AT HOPKINS—THREE YEARS.



UNCULTIVATED BLOCK AT HOPKINS—THREE YEARS.

peach orchard is that practiced by Mr. Mason at Martinsville, Ind. The orchard is ploughed in the spring and is kept thoroughly cultivated until the middle of August by being gone over with a spring-tooth harrow about every week or ten days. The latter part of August the cover crop is planted, which may be rye, one of the



THE CROP THAT MR. HOPKINS GOT THE THIRD SUMMER.

clovers, cowpeas or buckwheat. This crop is allowed to grow and remain in the orchard over winter, and is ploughed under some time the next spring. No attempt is made to profit any by this crop



A PEACH TREE, IN ITS THIRD SUMMER AT HOPKINS' ORCHARD.

which is grown between the trees, but all of the plant material is allowed to return to the soil, simply serving to enrich the ground and protect it in the winter from the effects of the washing rains.

PRUNING.

Perhaps the most important step in the pruning of a peach orchard is when the young trees are first planted. The peach trees as they come from the nursery are anywhere from three to seven feet in height and probably have innumerable small branches running out from the main stem. Most of the old books on horticulture give illustrations showing the proper methods of pruning such a tree. Almost without exception, these old illustrations show the main stem with a number of short, stubby branches left on it.

Trimming a young tree in such a fashion can not possibly produce the type of peach tree which we desire in our orchards today. It is absolutely necessary that the trees be headed as low as possible, in order to render the work of spraying and harvesting just as easy as possible. At the same time, the tree must not be headed too low or the work of protecting the trunk from borers (and while the tree is young, from rabbits), will be entirely too great.

For most localities in Indiana it is best to trim the trees when they come from the nursery to bare stubs about 18 inches in height. This will form the head of the tree from 12 to 18 inches from the ground, leaving ample room to wrap the tree for protection against rabbits and plenty of opportunity for protection against the peach borer.

In the northern part of the State I think that I would head the trees somewhat higher, owing to the fact that the heavy snows of winter enable the rabbits to reach higher up on the trunk. Consequently, it is necessary to wrap the trees higher than it is in the central and south parts of the State.

One successful grower in the south part of the State recommends that the peach trees be trimmed to an eight-inch stub. I am not in favor of this short pruning, owing to the fact that many branches are developed close to the ground, and, as a result, it is almost impossible to protect such a tree from the work of the peach borer. This matter of protection from the borer will be taken up in detail under its proper heading.

At the end of the first season's growth the young shoots should be cut back from one-half to two-thirds of their length. This is to induce the growth of the succeeding year to branch out and form a compact head as low down as possible. From now on the pruning each year must be planned so as to form open top, vase shaped trees. Trees of this type are able to bear larger loads of fruit without breaking than are the straggly trees of the old peach orchard.

As a rule, it is well to prune peach trees in the spring of the year, and the amount of pruning which is done can often be de-

terminated by the condition in which the wood has been left by the cold weather of the winter. If the trees have been injured to such an extent that the buds on the terminal shoots have been killed, it will be well to remove large portions of the growth of the preceding season. This will induce the development of strong, vigorous shoots during the succeeding season of growth and the trees will be that much thriftier for the next year.

In case the trees have passed through the winter in a successful condition, and give promise of bearing a large fruit crop it would be unwise to reduce the fruit-bearing area to any considerable extent. Consequently, we can readily see that the amount of pruning to be done in a peach orchard must be determined, to a certain extent, by the condition in which the trees go through the winter.

Last spring a city man of Indianapolis purchased an orchard in Brown County. The peach trees had been neglected for a number of years and were badly overgrown, many of the trees interlocking with their neighbors. In this particular orchard there were very few fruit buds, indicating that the crop of fruit would be light, and I suggested to the new owner that he "dehorn" the trees. He did not understand the term and I volunteered to demonstrate what I meant if he would get me a saw. I removed practically the whole top of the tree, leaving only some bare stubs about six or seven feet from the ground. The owner of the tree begged me to desist from any further demonstration as he was sure that the tree had been ruined, but after talking with him about the middle of the summer, I learned that the tree which was apparently butchered last spring is now the best looking tree in the entire orchard, and he proposes to treat the balance of the trees in the same way next season. As a matter of fact, the process of dehorning is an exceedingly valuable one in the peach orchard.

I know of one orchard in Harrison County that has been kept in successful bearing for nearly 25 years by the judicious use of this practice. The accompanying illustrations will show the excellent head that the tree grows after being cut back in the way that I have indicated. The pictures will, also, illustrate the extent of cutting back that is necessary to produce such growth. Peach trees cut back in this manner will usually bear fruit on the new growth the season following that in which they are cut back.

It is often desirable in an old, neglected orchard to head back about every other row of trees, leaving the intermediate rows to bear fruit during the year when the dehorned trees are growing the new top.



READY FOR THE FIRST SPRAYING

SPRAYING.

During the last few years peach growers have come to recognize the fact that it is just as necessary to spray their orchards systematically as it is to spray apple orchards. Formerly it was possible to grow peaches with practically no care along the line of spraying—fruit was perfect without any attention. Recently, however, a number of plant diseases have become common and have rendered it impossible to grow perfect peaches without the application of a spray solution several times during the growing season.

In many sections, the peach leaf curl has become so serious that it requires a special treatment of its own. San Jose scale, while having but little effect on the fruit, is a pest which must be combated in many peach orchards and requires thorough spraying once each year in orchards where it becomes established. For the convenience of the grower, I have formulated a spraying schedule—not a “spray calendar” in any sense of the word—but simply a spraying schedule which can be followed throughout the season and which will guide the grower in the prevention of a large majority of the peach diseases and insects which are liable to occur in Indiana orchards. Some diseases and some insects must receive special treatment and are not included in this spray outline, owing to the fact that they are not universally prevalent throughout the State.

SPRAY SCHEDULE.

First. This application is made before the buds open and while they are still practically dormant. This spraying is to prevent the disease known as peach leaf curl—a fungous disease affecting the leaves and which is carried over the winter in the form of spores located on the twigs. This spraying, like all others, must be exceedingly thorough if good results are to follow. The solution recommended is either a Bordeaux solution made with 6 pounds of copper sulphate, 4 pounds of lime and 50 gallons of water, or a lime and sulphur solution made as follows: 15 pounds of lime, 15 pounds of sulphur and 50 gallons of water; the whole to be boiled for at least 30 minutes. As a substitute for this lime and sulphur solution, a commercial lime and sulphur solution may be employed which is made as follows: Concentrated commercial lime and sulphur, 1 gallon; water, 12 gallons.

Second. This spray is applied just after the calyx sheds from the young peach. It will be noted that after the petals fall from

young peaches, the small calyx cup or husk falls off some time later. This usually happens after the young peaches are well formed and as soon as they begin to grow. The spraying at this time is to prevent the work of the plum curculio and, also, the early infection of the peach scab. The solution that should be used at this time consists of the self-boiled lime and sulphur solution made as follows: 8 pounds of lime, 8 pounds of sulphur and 50 gallons of water. The lime and sulphur are to be placed in a barrel and about 10 gallons of hot water are to be added to them. This solution is allowed to cook for about 20 minutes, simply by the heat generated from the slacking lime. At the end of 20 minutes, the additional 40 gallons of water is added to make the solution up to full strength of 50 gallons. To this 50 gallons of lime and sulphur solution should be added $1\frac{1}{2}$ pounds of arsenate of lead. The arsenate of lead is employed as a poison for the curculio and other leaf-eating insects.

Third. This spraying is simply a repetition of the second in all respects and is made to cover up any deficiencies of the second spraying. It is possible that if the second spraying be applied very thoroughly over a large area that the third spraying might be omitted; but these ideal conditions are hardly obtainable in any peach orchard in Indiana. Consequently, this third spraying is recommended. It is applied ten days or two weeks after the second spraying.

Fourth. This spraying is made at about the time the peaches start to color, and on some of the early ripening varieties this fourth spraying may be omitted. On all main crop sorts and late varieties, the spraying should be applied without fail. It is designed primarily to prevent further infection of the peach scab and to prevent the development of the fungus which produces the brown rot on the peach. The self-boiled lime and sulphur should be employed, but the arsenate of lead may be omitted at this time. It will be noted that in the last three sprayings the self-boiled lime and sulphur solution has been recommended. The commercial lime and sulphur solution has not given entire satisfaction as a summer spray for peaches, although it is all that we can desire as a fungicide in the apple orchard. In a few cases the commercial lime and sulphur solution has yielded splendid results on peach trees and has produced absolutely no injury, but on other orchards considerable injury has resulted. Last spring some of the apple orchardists in Indiana who had been well pleased with the use of the commercial lime-sulphur solution on their apples tried the same

solution on the peach trees, using a dilution of one to forty (1-40). I know of a number of cases where this strength was used and absolutely no damage resulted to the peach trees. On the other hand, I have a report from the eastern part of the United States where a dilution of one to one hundred and twenty-five (1-125) resulted in complete defoliation of the trees. It will be seen that there is much to be learned regarding the behavior of these commercial lime-sulphur solutions.

VARIETIES.

In the following list of varieties, I have tried to include those that were best adapted for commercial growing in Indiana. I have, no doubt, left out quite a number of varieties that are favorites with some, but the following list includes the sorts that are recommended by the largest number of successful growers in this State. I have taken the liberty of including one or two new varieties that have originated in Indiana and that give more or less promise of being successful commercial sorts. The peach is not a fruit that adapts itself to new conditions, and very often the sorts which originate in a locality prove to be valuable commercial varieties for that section. This is notably true of the peach known as the Burgess Cling or the Hoosier Cling, which will be discussed more fully under its proper heading. The following list of varieties is arranged in the order in which the peaches ripen. Each description will be followed by initials which indicate the section of the State where the variety will be expected to do the best, the initials S., C. and N. being used to indicate south, central and north sections. All of the peaches described are free stones except where the word cling is included as a portion of the name of the variety:

Mountain Rose.—This is one of the very best early varieties which can be grown in the southern part of the State for market purposes. The fruit is quite large, round and entirely free. The flesh is white and exceedingly juicy and of fine quality. In color, the skin of the peach is white with a red blush on the side next to the sun. The variety originated in New Jersey, but has shown itself to be adapted to our southern Indiana hills. Some of the finest fruit I have ever eaten were Mountain Rose peaches grown in the hills of Brown County. S.

Champion.—By many growers the Champion is regarded as the best early market peach. The fruit is very large, the skin is creamy white with a red cheek next to the sun. The flesh is white, juicy,

and the quality is excellent. This is one of the hardiest varieties that we have among the early peaches. The variety originated in Illinois and is adapted to practically all sections of the State, being one of the extremely valuable varieties for its season.

Old Mixon Free.—This hardy peach is popular with a great many growers. The fruit is large, slightly oval in shape and somewhat lopsided. The skin is pale yellow marked with red; the flesh tender and rich with a deep red color at the stone. This is one of the valuable main crop peaches and has shown itself to be a valuable sort for southern Indiana, although it is sufficiently hardy to be planted throughout the State. N. C. S.

Stump.—This variety is very similar to the Old Mixon Free, but ripens a little later. It is also a valuable market sort and can be planted to follow up the preceding. N. C. S.

Crawford's Early.—This variety is almost universally recommended by growers throughout Indiana. The fruit is very large, oval in shape with sharp pointed apex. The skin is yellow marked with red. In quality, the early Crawford is subacid and juicy. As a general thing, this sort has shown itself to be a good bearer and very reliable—producing crops of fruit when other varieties failed. It is recommended especially as an excellent market sort for the entire State. The variety originated in New Jersey. N. C. S.

Crawford's Late.—This large yellow peach has not so good a record as the Crawford's Early and is not recommended for wide planting in Indiana. A few growers still regard it as a choice sort, and continue to plant a certain portion of the trees. The variety also originated in New Jersey.

Elberta.—The Elberta has been termed the Ben Davis of the peach tribe. In quality, the fruit is not so good as many other peaches, but the variety is exceedingly reliable, and as a rule the Elberta trees will bear when everything else fails. The tree is a strong grower and quite hardy. The fruit, while of medium size, is usually of an attractive color, being yellow with a blush on the sunny side. The flesh is tender and juicy although the quality is not the best.

One thing which makes the Elberta a valuable market sort is the fact that the fruit can be picked green and will ripen off the trees. This one fact has made the Elberta one of the most profitable varieties in this and other States. N. C. S.

Smock.—This variety is another sort that originated in New Jersey. It ripens late, the fruit is large, oval in shape; the skin is yellow marked with red. The flesh of the Smock is yellow and

the center next to the stone is red. The quality of the peach is not so good as some, but the fact that it is reliable has made it a good sort for the market. N. C. S.

Salway.—This peach of English origin has developed into one of the very best varieties for growing in Indiana. The fruit is large, roundish in shape with a yellow skin blushed with red. The flesh is yellow and the center is red. In quality, the Salway is one of the best, the flesh being sweet, juicy and of fine flavor. Altogether, this is probably the very best late peach that we have, for it is not only fine in quality but sufficiently firm to make it an excellent shipper. It is especially recommended for the central and southern parts of the State.

Engle's Mammoth.—This peach is recommended by some growers for the northern part of the State, it having developed quite a reputation among the peach orchards in Michigan. It is especially prized as a peach for canning purposes and is recommended for this purpose. The peach is large with a red cheek; the quality is excellent. N.

Kalamazoo.—This variety originated in Kalamazoo, and attracted attention by bearing regular crops of large fruit of highest quality in a locality where the peach is considered a failure. It is a wonderfully strong grower, bears full loads of fruit at two years old, and sets an enormous amount of fruit. Its size equals Early Crawford, more uniform but small; superb quality, flesh thick, and yellow in color. The skin is golden yellow with light crimson cheek. The fruit ripens between the Early and Late Crawford.

Hoosier Cling.—This variety should be known as the Burgess Cling having originated on Mr. Burgess's farm near DePauw, Indiana. Mr. Burgess's description of the peach follows: "It originated on the Burgess farm, hence the name. It has been in existence for forty-five or fifty years, and is a white meated peach with a blush on one side. It varies in size from $2\frac{1}{2}$ to 3 inches in diameter. For canning purposes it is one of the best if not the best in the world. It keeps well in shipping. It is an excellent bearer, is of fine flavor, sweet and juicy. It ripens about the first of September and is a well known peach in Harrison and adjoining counties."

Heath Cling.—This white peach is one of the very best of its season, which is late, but unfortunately it is not a dependable bearer and can not be recommended for commercial planting. In some sections of the south, however, it has proved to be a good commercial sort.

Hopkins Favorite. This name has been given to a peach that seems to have originated with Mr. L. V. Hopkins, of Maxwell, Indiana. The fruit is of medium size, well colored and quite free. Though new, it promises to be a good market peach for the central Indiana section, where it originated.



THE ORIGINAL TREE OF THE "HOPKINS FAVORITE".

INSECTS INJURIOUS TO THE PEACH.

Professor A. L. Quaintance of the United States Department of Agriculture states that 190 species of insects attack the peach. Comparatively few of these, however, are of any importance; but those few produce an injury of several million dollars per annum. During the last few years, the more important insects affecting the peach have apparently increased in number, and as a result peach growing has not yielded the profit which was formerly credited to that industry. While the insects affecting the peach can not be controlled with the same ease that the insects affecting the apple can be controlled, they can be held in check to such an extent that the business of growing peaches still remains one of the most profitable branches of horticulture. The intelligent, careful grower need not hesitate to plant peach orchards, provided he is willing to enter into the matter in a scientific way and is prepared to fight the various injurious insects from the time that the orchard is planted.



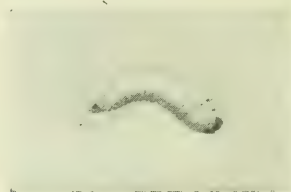
COCOONS AND PUPAE OF THE PEACH BORER.

INSECTS AFFECTING THE TREES.

PEACH BORER—(*Sanninoidea exitiosa*.)

The peach borer is recognized as the most injurious insect affecting the peach tree that we have to combat. It is a native insect and the injury which it causes annually mounts into the

thousands of dollars. "Its native food plant is thought to have been the wild cherry and possibly, also, the wild plum. With the introduction of the peach by the early settlers, this plant soon became its favorite food, and complaints of its destructiveness are frequent in our early horticultural literature. It is now known to infest various cultivated varieties of stone fruit, the apricot, nectarine, prune and plum, but it is preëminently destructive to the peach." (A. L. Quaintance.)



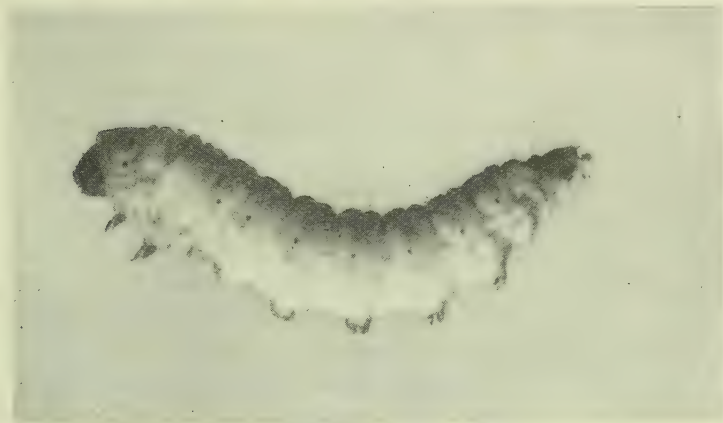
LARVA OF PEACH BORER.
(Natural size.)

The borers will attack the peach tree at any age, but as a rule, are more destructive to the young trees. This is due, probably, to the fact that the young trees, being smaller, are more seriously injured by the work of the insects, than are the large, vigorous trees that are in the older, well cared for orchards. One or two borers in a one-year-old tree can very easily kill the tree, while old trees sometimes manage to live even when they harbor as many as fifty or sixty separate insects. The peach borer usually attacks the tree at or near the surface of the ground, and the grub or larva excavates a burrow just under the bark in the growing tissues. The peach tree usually exudes quite a quantity of gum at the point of the injury in an effort to overcome the effect of the borer. In wet weather, this mass of gum sometimes swells to considerable size and in badly infested young trees I have seen a quantity of gum equal to about a quart laying around the tree at the surface of the ground.

The insect is very often met with in the nursery and the planter of the peach trees should examine his stock for its presence. No tree should be planted which might be suspected of harboring peach borers, and any badly injured trees should be rejected. No reputable grower will send out peach trees that have been badly injured by this pest or that are, by any chance, infested with the insect.

Several years ago, it was necessary for me to refuse a certificate for the sale of a large block of peach trees grown by one of

the large nurseries in this State but whose headquarters were in Ohio. In my examination of the stock in the field, I was unable to find any trees that were not affected with the borers, and condemned the entire block. Later the proprietor of the nursery in-



PEACH BORER ENLARGED.

formed me that he had about a carload of trees dug that he was sure were entirely free from the insect and requested that a special inspection be made of this particular car lot. I made a special inspection of the trees in his packing house and condemned about



PEACH TREE WITH EARTH HILLED UP AS A PREVENTATIVE OF BORER INJURY.

20 per cent. of those that he had pronounced absolutely free from borers. Of this 20 per cent., all of the trees were girdled more than 50 per cent. of the distance around the stem. Some trees that were only slightly injured were allowed to pass in this lot, after the borers had been carefully dug out and destroyed. This lot of condemned trees had already passed inspection by the Ohio inspector and the owner was somewhat indignant at the thoroughness of the Indiana inspection.

About three years ago I visited the orchard of Mr. John Billheimer in Brown County, and was very much surprised to find that no preventive measures had been taken to prevent the work of the peach borer and that no work was being done to dig out the grubs that might be in the trees. The owner informed me that he did not believe that he had any peach borers in his orchard, but a very slight examination was sufficient to reveal the presence of borers in practically every tree on the place. In this orchard I saw what I believe to be the worst cases of peach borers that I have ever seen in young trees. Some of the trees were already dead at the time of my visit, but their death had been attributed to other causes. The planter of a young orchard can not be too careful in the selection of his stock and in the care of it after it is planted. No tree should be planted that is not absolutely perfect in every way and in ordering trees from a nursery, this point should be made perfectly clear to the owner of the nursery before the order is given.

Life History.—The peach borer winters in the larval stage and most of the grubs remain in their channels under the bark. Some of the smaller worms come to the surface and construct cells in which they hibernate during the winter. Early in the spring the larvae start eating again and pupate about May the first. The pupal condition lasts about one month, the adults beginning to emerge early in June, and continue to emerge until about the middle of September. This accounts for the fact that we ordinarily find the worms present in the peach tree in various sizes during the spring and fall. There is but one brood each year. The eggs are laid from early summer until September. The single brood does not all appear at one time and, in effect, we have innumerable overlapping broods appearing throughout the summer. The long period of egg laying makes the insect that much more difficult to control. The eggs are laid on the trunks of the trees and as soon as the young larvae hatch they at once burrow beneath the bark and begin feeding on the tender tissues.

A great many preventatives have been tried, but very few of them have shown to be of any value. Practically all of the preventatives in the nature of solutions sprayed on the trees have not only failed to accomplish any good results but some of them have been positively injurious. Practically the only method of controlling this injurious insect is to cut out and destroy the borers each spring.

Some growers practice the worming of the trees, as they call it, in both the spring and fall and supplement their work by mounding up the earth around the trees in the first part of June and allow the earth to remain until September. This mound of earth should be about a foot high and it serves to cause the borers to enter the tree higher up than they ordinarily would. When the earth is removed in September the work of the young borers can readily be seen and they can be dug out at that time and destroyed, thus greatly reducing the labor of worming the trees. This method of control has given entire satisfaction in a large number of Indiana orchards.

The sources of infestation should be looked after as closely as possible and any badly neglected and infested trees in the neighborhood should be removed.

LESSER PEACH BORER—(*Aegeria pictipes*.)

This borer is similar to the last, but the moth is somewhat smaller and attacks the trunk and larger branches. It is not a serious pest in a well cared for orchard and has been reported from only a very few places in Indiana. Wherever it occurs, it is necessary to employ the same methods for its eradication as have been recommended for the control of the peach borer.

FRUIT TREE BARK BEETLE—(*Scolytus rugulosis*.)

This small, black beetle bores a hole in the bark and digs out a brood chamber about an inch and a half in length and usually parallel with the tree. In this brood chamber the eggs are laid and the young grubs make feeding tunnels at right angles with the brood chamber. In this way the tree is soon girdled. There are several generations of the insect annually and when it attacks a tree it usually makes short work of it. It is not an insect to be feared by the careful grower, owing to the fact that it never attacks a perfectly healthy tree, but only trees that have been weakened by some other cause.



WORK OF THE FRUIT TREE BARK BEETLE.

When the young beetles first attack the tree the evidence of their work is to be found in masses of gum which are exuded along the branches where they are working. Later when the adults emerge from the tree they come out through a round, circular hole about the size of a number 8 shot, and a badly infested tree has the appearance of having been shot with a shotgun. Whenever the insect is found to be at work in the tree the weakening cause which led to the infestation by the fruit tree bark beetle should be sought for and, if possible, removed.

It is doubtful, however, if any tree can be saved which is once attacked by these small beetles, and when their presence is noted the tree should be cut and burned at once. The burning should not be neglected. It is not sufficient simply to cut the tree and let it lay on the ground, for it will continue to be an excellent breeding place for the beetles, and it is entirely possible to imagine a condition wherein this beetle might attack practically healthy trees, should the insects occur in sufficient numbers and find no suitable breeding place in the shape of weakened trees.

For San Jose Scale and other scale insects, see article on "Scale Insects of Indiana."

PLUM CURCULIO—(*Conotrachelus nenuphar*.)

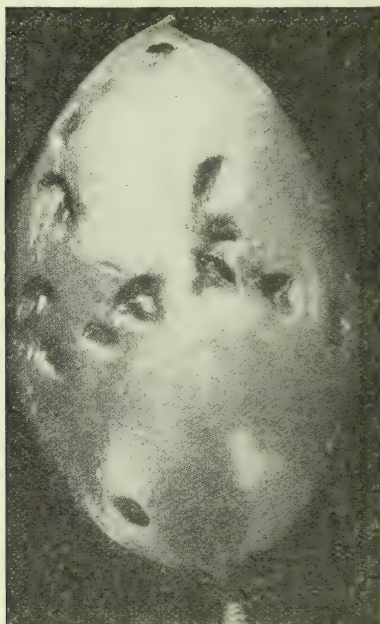
This insect and its close relative, the apple curculio, are the two worst enemies to fruit growers in Indiana. The injury caused



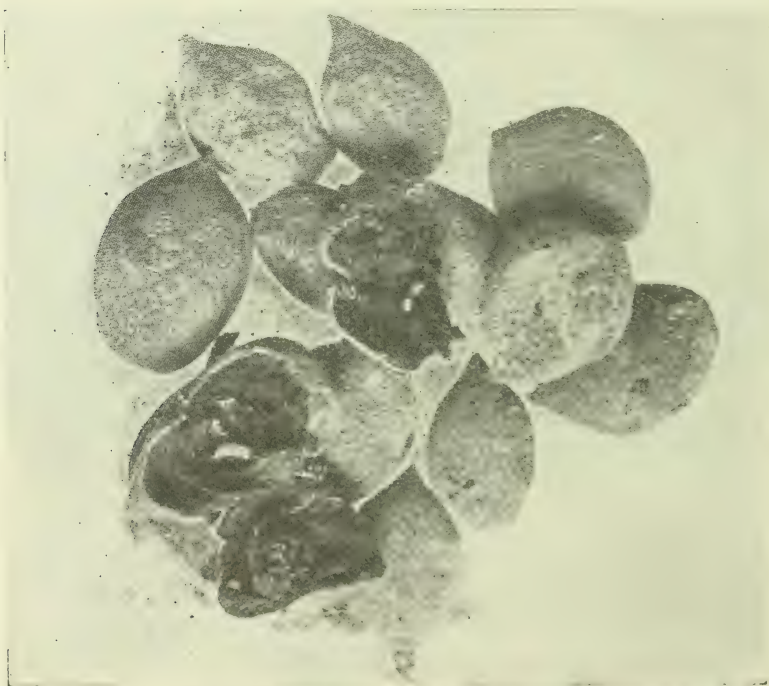
EFFECT OF PLUM CURCULIO.

is not only severe but exceedingly difficult to control. The plum curculio attacks not only the plum but, to a very large extent, the peach, the various other stone fruits, and frequently the apple.

In controlling it in an orchard, it is necessary to employ various means. Clean culture in the orchard will go a long ways



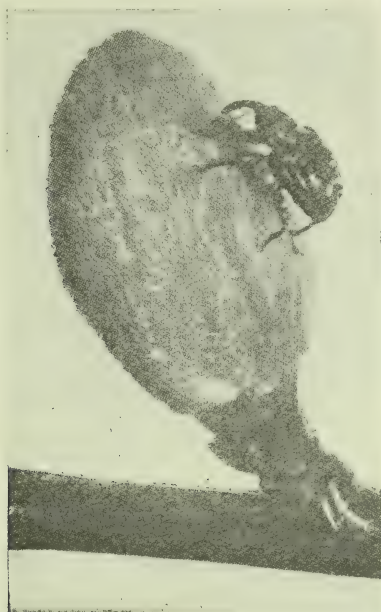
PLUM SHOWING CHARACTERISTIC INJURY OF THE CURCULIO.
(After U. S. Dept. Agr.)



PLUMS SHOWING WORK OF CURCULIO.
(After U. S. Dept. Agr.)

toward preventing injury from this beetle as the adults hibernate during the winter in rubbish laying on the ground.

In some sections jarring the trees is practiced to collect the adult beetles before they begin to lay their eggs in the spring. In this work a curculio catcher is employed, which consists simply of



PLUM CURCULIO AT WORK ON A YOUNG PEACH.

After U. S. Dept. Agr.)

a sheet spread on the ground and a long padded pole with which the trees are jarred. The beetles have a habit of "playing possum" when they are disturbed and as soon as the tree is jarred they let go all hold and fall to the ground, where they are readily gathered up in the sheet and destroyed. Various forms of curculio catchers have been devised and a few simple forms are illustrated herewith. The adult is known to be a very scant feeder in the spring of the year and, theoretically, spraying with any arsenical poison will not greatly benefit the situation. It is a well known fact, however, that sprayed orchards are far freer from curculio injury than orchards that are not sprayed.

From practical experience in the matter, I believe that I would about as soon trust to control this insect with spraying as with the jarring method practiced so widely in some other sections. Spray-

ing and cultivation have accomplished so much in our orchards in other ways that I have great confidence in the ultimate success of these measures in the control of this rather difficult pest.

Life History.—The curculio winters in the adult stage. The



PEACH SHOWING LARVA OF PLUM CURCULIO.
(After U. S. Dept. Agr.)



CURCULIO CATCHERS IN GEORGIA.
(After U. S. Dept. Agr.)

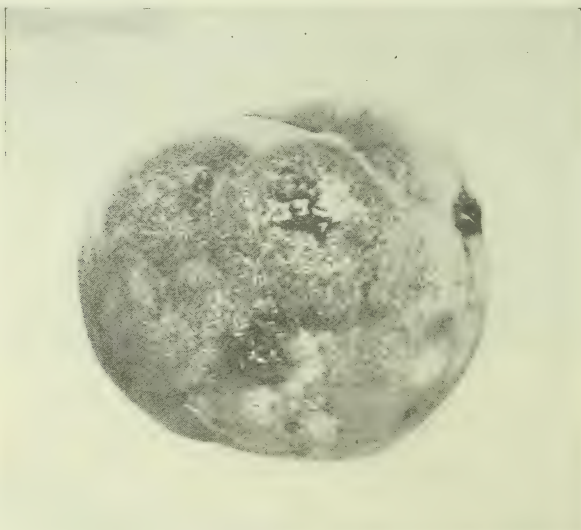


A CURCULIO CATCHER.
(After U. S. Dept. Agr.)



PERFECT CULTIVATION LEAVES NO PLACE FOR THE CURCULIO.

beetle is a stout, heavily built insect about one-fourth of an inch or less in length; dark grey in color and marked with white and black. There are four prominent humps on the wing cover which serve to distinguish the beetle from any other snout beetle in the orchard. The adult beetles become active at the approach of spring and egg laying starts when the young fruit has set. The adults cut crescent-shaped slits in the fruit and the eggs are laid in this



EFFECT OF CODLING MOTH IN PEACH.

crescent-shaped slit, so that the young larva is entirely out of the way of any arsenical poison as soon as it hatches. The eggs hatch in about a week, though this time varies according to the season.



YOUNG PEACH BUGS SHOWING DIFFERENT SIZES IN THE DEVELOPMENT.

Adult shown in another picture.

The larva is a "slightly reddish white grub, with rather sparse, bristling, yellowish brown hair and a small, yellowish brown head. It is nearly one-half inch in length and is quite active." (J. B. Smith.)

The first adults emerge in July and almost at once fall to the ground where they remain the balance of the summer, and throughout the winter.



A "TRUE BUG" THAT INJURES PEACHES.

(*Nazara hilaris* Say.)

This insect was found doing considerable damage to growing peaches at Indianapolis during the summer of 1911.

DISEASES OF THE PEACH.

Under this heading will be discussed the various fungous and bacterial diseases of the peach trees and also the disease known as the Peach Yellows, which is not strictly a bacterial disease but which can not properly come under any other heading than the above.

DISEASES AFFECTING THE TREE.

Peach Yellows.—After twenty years of scientific investigation, the disease known as Peach Yellows remains today practically as much of an enigma as it was two decades ago. We are able to recognize the symptoms of the disease with more or less accuracy and we know that trees which are attacked never recover, and that the only means of preventing the further spread of the trouble is to cut out and burn all of the infested trees.

While the disease is known to be infectious, it has never been demonstrated that it was caused by any specific organisms. It is liable to attack the tree at practically any age from the young trees in the nursery rows to old trees in bearing orchards. This disease probably had more influence in discouraging the peach



A TYPICAL CASE OF PEACH YELLOWS.



ORCHARD KILLED BY YELLOW.

growers in southern Indiana fifteen and twenty years ago than any other trouble that they had to combat. They recognized the disease as positively fatal and had absolutely no means then for combating it.



PEACH YELLOWS.

The first effect of the disease is to cause a marked discoloration of the leaves. In bearing trees the fruit ripens prematurely and is characterized by bright red streaks running from the skin to the

center of the fruit. When the peach is cut, these streaks appear as lines and dots of bright red through the flesh of the fruit. Sometimes the peaches on infected trees will hang on the trees during the winter in much the same fashion that the mummies from the brown rot hang on the trees. About the third year after the tree is attacked it starts to die and low on the trunk will be developed great bunches of wiry, slender twigs. This condition is well illustrated in the accompanying photograph.

Whenever the disease is known to be present in an orchard, all suspicious trees should be taken out and burned at once. It is not advisable to carry the trees out of the orchard to burn them, but they should be cut up and burned where they stood so as not to carry the infection to any other portion of the orchard. Orchards that are well cultivated and where the trees are kept in a strong, vigorous condition are much less liable to be attacked by Peach Yellows than are those which are neglected, not cultivated and allowed to overbear without fertilization of the soil.

Like other diseases, Peach Yellows is more liable to attack a weakened tree than it is one which is in a condition of perfect health. This is simply another one of the innumerable reasons for giving the orchard thorough cultivation from the time that it is planted.

It has been supposed, too, that the Peach Yellows can be disseminated on nursery stock. The disease is rarely ever present on nursery stock in a condition that can be accurately diagnosed, so that the ordinary nursery inspection will not prevent the dissemination of the diseased trees. In general, we have been making an effort to prevent the sale of peach trees grown in districts that are known to be infested with the Peach Yellows. During the past years, several thousand acres have been inspected in Indiana and a large number of trees have been condemned and cut and burned by the owners. In one section in Morgan County this inspection work has resulted in a renewed enthusiasm among the peach growers and many new orchards are being planted.

BLIGHT—(*Coryneum* Beijerinck).

This is a fungus disease which affects the twigs and is readily recognized by the formation of gum on the infested branches. The fruit buds are also attacked by the fungus and usually killed. The leaves are frequently retarded and the tree is placed in a much weakened condition. The gum will be found to exude from the



EFFECTS OF PEACH BLIGHT.

dead bud in the twig and in general the appearance is somewhat like that produced by the work of the Fruit Tree Bark Beetle. By cutting into the branch, the tissue will be found to be discolored and in various stages of disorganization. The difference between this condition and the work of the Fruit Tree Bark Beetle can be readily recognized.

While the disease occurs in Indiana and I have observed it in a number of different localities I have never had any occasion to spray for the prevention of it. In fact, the trouble has been studied for so short a time that but little experimental work along the line of spraying has been attempted. In other States, I understand that winter spraying with a lime-sulphur solution or with a strong Bordeaux gives very excellent results. The winter treatment for the San Jose scale would, therefore, serve the double purpose of controlling the scale and also preventing the peach blight.

CROWN GALL—(*Pseudomonas tumefaciens*).

The Crown Gall on the peach is identical with the same disease occurring on the apple. In fact, it is now supposed that the various root galls on the different species of plants are all attributable to the same bacteria. Infestation usually takes place in the nursery, and infected trees have well developed galls on the roots usually near the surface of the ground when they come from the nursery.

The remedy for the entire trouble lies largely with the planter—simply not to plant trees that show injury of this sort.

This disease is one of the pests that it is almost impossible to locate in the work of inspecting nurseries, since it occurs usually below the soil line. No reputable nursery, however, will send out stock that is infested with this or any other disease, and when an order for trees is given the buyer should make it plain that he will pay only for stock that proves to be absolutely healthy in every respect.

PEACH MILDEW—(*Sphaerotheca pannosa*).

This fungous disease is not one to give the peach grower any concern owing to the fact that it does not attack our commercial sorts to any extent. The disease is more common on the trees in the nursery rows than in the orchards, but the self-boiled lime and sulphur will entirely prevent it.

The disease attacks the leaves and is noticed as a white web growing on the surface. Defoliation usually follows a severe at-

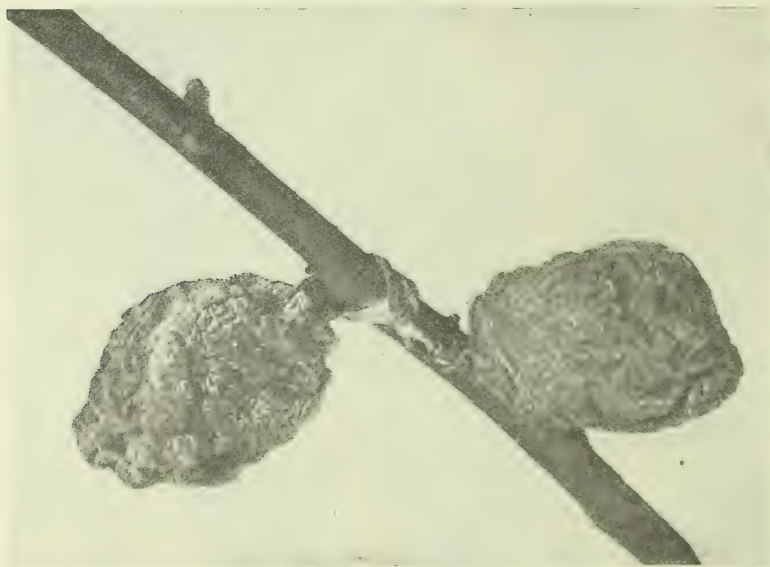
tack of the disease. The variety known as the "Friday" peach is especially liable to attacks of this fungus. This is an inferior seedling of no commercial importance, so that its susceptibility to the disease need give us no concern.

The mildew is the same as the fungus so common on the rose, where it often does great damage.

THE DISEASES AFFECTING THE FRUIT OR LEAF.

BROWN ROT—(*Sclerotinia fructigena*).

This is the most common disease of the fruit of the peach. It is known in various sections under different names, such as Brown Rot, Peach Rot, Common Rot and Monilia. It is of very wide distribution and occurs in all peach growing sections. As a rule, the disease is worse in wet seasons than in dry. Heavy crops also tend



BROWN ROT.

to favor the development of the disease and thinning is advisable not only from the standpoint of preventing the disease, but also from the standpoint of the general condition of the orchard.

Ordinarily, the rot attacks the peach after the time when it is half grown, starting as a brown area and ultimately involving the entire fruit. As the disease progresses the fruit becomes watery and finally shrinks and dries to a mummy, which hangs on the

tree over winter. These mummies which remain on the trees are the source of infection for the next season, and it is necessary to remove them carefully in the early winter and destroy them by burning, or by burying them deeply. In case these mummies are not removed from the trees, the disease may attack the blossoms early in the spring and destroy them. This phase of the disease is not well recognized by many peach growers and frequently the loss of a crop is attributed to frost when, as a matter of fact,



EFFECTS OF BROWN ROT.

Peaches dry up and hang on trees.

it is due simply to the neglect of the brown rot. In this case, the twigs may also be involved and killed. These may be prevented by removing the mummies in the winter as suggested, and if this practice could be followed out over a large area a great deal of good could be accomplished. Unfortunately, it is not possible to carry out such a measure with any degree of uniformity in an area of any size. There will always be some growers who will fail to look after their trees and there will always be enough neglected trees to furnish an abundant supply of spores to reinfect the well-cared for orchards.

Consequently, it will be necessary to adopt some spraying measures to prevent the occurrence of the trouble on the fruit. In the spray schedule given elsewhere in this report, there will be found recommendation for what is known as the fourth spraying applied about the time when the fruit begins to color. This spraying will have a great deal to do with the prevention of the rot on the fruit.

Some varieties are more susceptible to this disease than are others, and this fact has been recognized in the selection of the sorts recommended for commercial orchards and published elsewhere in this report.

PEACH SCAB—(*Cladosporium carpophilum*).

This fungous disease is widely distributed and occurs in practically all sections where peaches are grown. It affects the fruit, the twigs and the leaves. The effect on the fruit is superficial, the disease producing small, round spots of very dark grey or black. Ultimately, the entire fruit may become involved with this dark, grey, scabby condition and in badly affected specimens the fruit



PEACH SCAB

cracks open. The disease is more common on white peaches than on yellow peaches. I have found some growers who have had the peach scab in their orchards for many years and protested that it was not a fungous disease at all, but simply "the nature of the peach" as they expressed it.

I remember visiting one orchard where the peaches of a certain variety were all very badly scabbed and when I called the grower's attention to the fact he showed some surprise at my ignorance, as he thought, of that variety. "Why," he said, "that's the nature of the peach, to have those black spots on it. That's no disease." I had to talk to him for some time before I could convince him that he had one of the most serious peach diseases to contend with and that he could prevent all of it by thorough spraying.

When the disease attacks the leaf, the affected areas fall out and give the trees the appearance of having been shot at with a shotgun. The disease can be prevented absolutely by spraying with the self-boiled lime and sulphur solution as indicated in the spraying schedule published elsewhere in this volume.

PEACH LEAF CURL—(*Exoascus deformans*).

This disease of the peach is known in all parts of the world where peaches are grown. The spores are left on the twigs during the winter and infect the young leaves as soon as they open. The leaves are malformed by the growth of the fungous disease and are often highly colored. Ultimately, the affected leaves fall and a second crop of leaves may develop. As a rule, the second crop of leaves is free from the disease but it frequently comes out too late to be of any value in saving the crop of fruit, which falls through lack of nutrition soon after the first crop of leaves fall from the trees.

Seedling peaches are especially susceptible to the disease. It can be completely prevented by spraying with the lime-sulphur solution before the buds open.



NORMAL PEACH FOLIAGE.



PEACH LEAF CURL.



PEACH LEAF CURL

INSECTS INJURIOUS TO SHADE TREES.

We have received so many requests for information regarding insects injurious to shade trees that I have decided to devote a portion of this report to this matter.

Before discussing in detail the various forms injurious to shade trees I feel that it is proper to say something about certain predisposing influences that have a great deal to do with the nature and severity of insect attack.

Trees in cities are notoriously more liable to insect injury than trees of the same sort planted in the open country. Writers in the past have attempted to lay this difference to the fact that our native insect-eating birds were more numerous in the country than in towns. While this is true beyond question, I feel that certain other influences should not be overlooked.

The soil and atmospheric conditions in our cities are entirely different from the country and as a result the city trees never possess the same vigor that characterizes the trees of the country. In most cases the moisture level in large towns has been lowered, often several feet, by the building of sewers and the covering of the surface with buildings and pavements. The smoke of factories is no small item in the changed city conditions which the tree must endure. The gases of combustion if not actually poisonous at least serve to clog the breathing organs of the tree almost to the point of suffocation. Added to these conditions, city trees have the affliction of the professional tree trimmer, who alone is sufficient excuse to discourage any but the most stout hearted. Many trees planted along the curb are injured by horses hitched to or near them—this is, however, a form of damage on which the city has no monopoly.

All of these conditions combine to render the city trees not only more subject to insects and disease but in some cases to actually cause their death without further assistance. During the past few years the maples in Indianapolis have been giving trouble each summer by shedding their leaves prematurely and by a peculiar withering and drying of the leaves. Most careful examination has shown that there is no insect or fungous parasite at work, and we have been forced to the conclusion that the condition is one brought about by the change in the moisture content of the soil since the

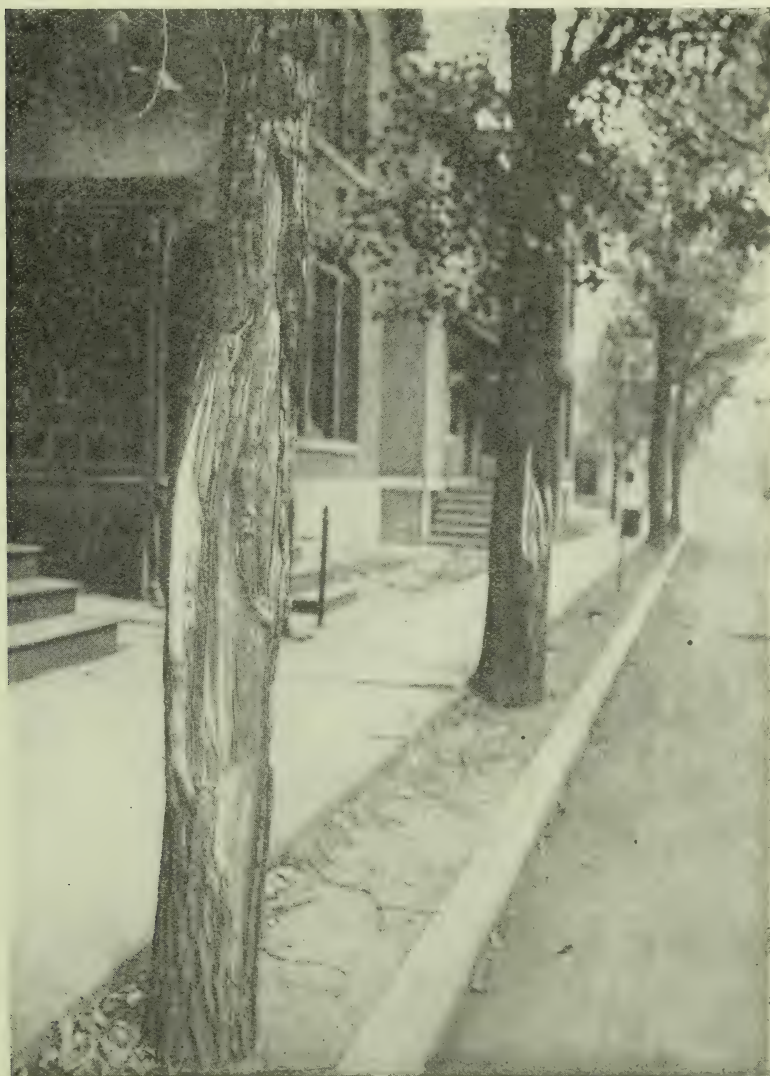
trees were planted. Some of the property owners protested that lack of water could not be the cause of injury on their trees because they watered them frequently. A little questioning generally brought out the fact that the watering consisted of a daily sprinkle of the surface—which really did more harm than good because it allowed of



TREES KILLED BY GAS IN INDIANAPOLIS.

the formation of a surface crust and permitted the escape of water by capillary action. If artificial watering is to be resorted to the trees should be dug around and the soil loosened to a depth of about a foot. *Plenty* of water should be used. A tree six inches in diameter should have the soil loosened around it for a distance of six feet in all directions. The roots are not immediately under

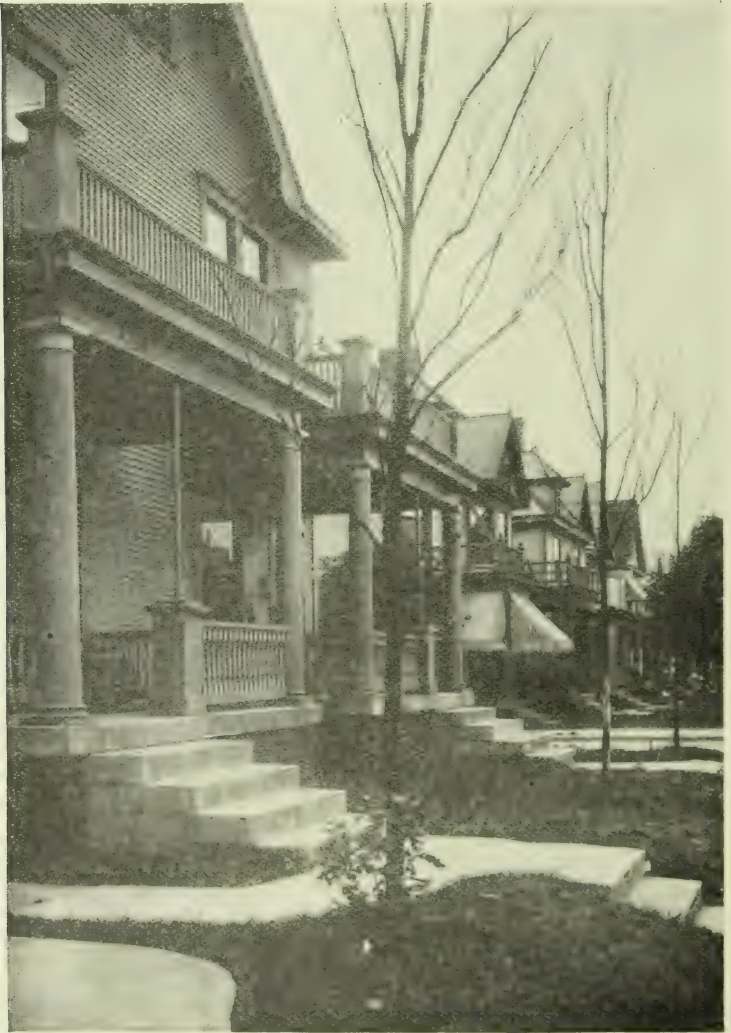
the trunk but often extend farther than the spread of the branches. A tree of this size could receive several barrels of water at one time without harm. After the water has soaked in keep the surface



A FORM OF INJURY FOR WHICH THERE IS NO EXCUSE.

soil loose—do not allow a crust to form. This is the same principle employed in the cultivation of corn—an operation designed to keep the moisture in the soil where the plant can use it.

Few people realize how much effect sewers have on the moisture content of the soil in cities. I have seen a very striking illustration of the way in which sewers work in draining the soil in Indianap-



THESE TREES WERE KILLED BY PAINTING TAR ON THE TRUNKS.

The sprouts at the surface of the ground show that the trees were still vigorous when the treatment was applied.

olis. About a year ago the city built a large sewer in College avenue north of Fall Creek. During the dry weather of the past summer this sewer never ran less than twelve inches of clear water and there are not a dozen connections on it. Such a drain on the soil

moisture can not help having an ultimate effect on the growth of trees in the drained area.

The influence of the tree trimmer in increasing the susceptibility of a tree to insect attack is often of more importance than would appear at first glance. Many trees are so weakened by wanton butchery that they become an easy prey to the various



THE BARK HAS BEEN REMOVED FROM THE AREA KILLED BY PAINTING
TAR ON THE TREE.

This was on the south side where the tar and oil remained liquid longer owing to the warmth of the sun.

borers that seldom attack vigorous trees. While this vandalistic form of injury is preventable it is surprising how many people continue to allow the tree butchers to ruin fine shade trees. The tree



EARLY STAGE OF BRACKET FUNGUS ON HACKBERRY.

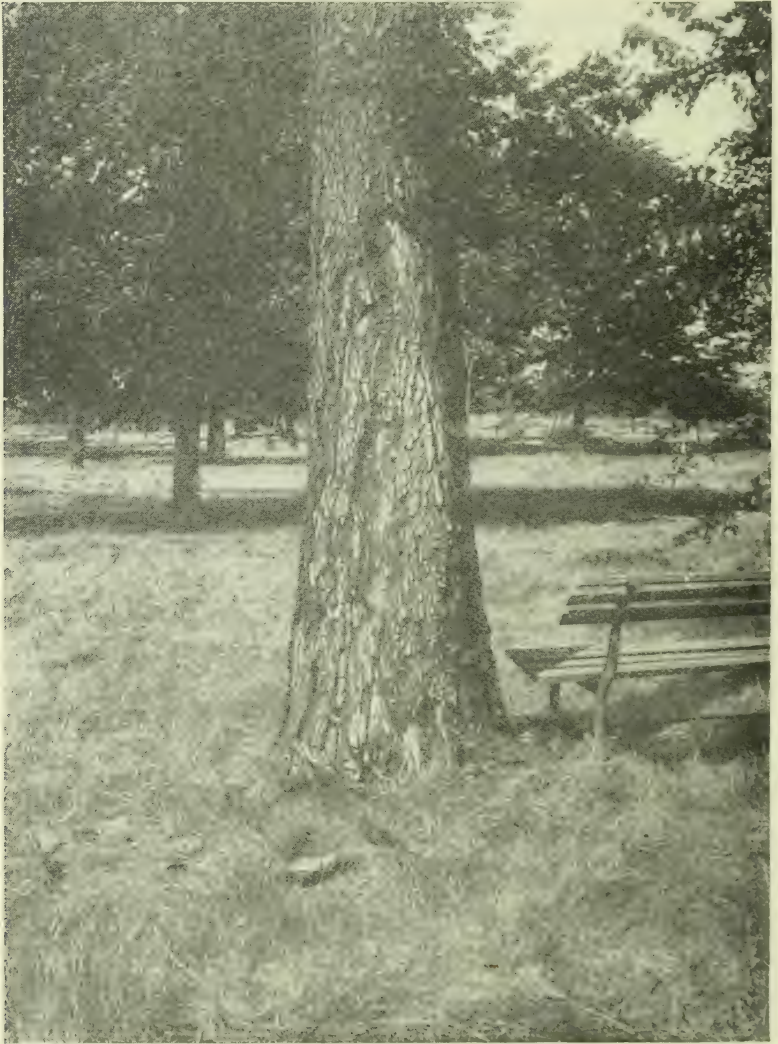
butcher goes on P. T. Barnum's old assumption that "there is a sucker born every minute." The truth of this was well shown in Indianapolis last year when some itinerant "tree doctor" went about painting the trunks of shade trees with a "dope" containing tar.

According to the self-styled expert, the preparation was absorbed through the bark and then disseminated to all parts of the tree killing any "bugs" that might be present. When there was no evidence of any insect injury the tree doctor would suggest the use of the tar paint to "open up the pores of the bark and make the tree healthy." It seems almost too absurd to believe that in-



BRACKET FUNGUS ON HACKBERRY.

telligent citizens would be caught by such a faker, but even after a series of newspaper warnings he succeeded in painting hundreds of trees throughout the city. The deplorable thing about it all is



RESULT OF BRACKET FUNGUS ON HACKBERRY.

that practically every tree that was painted died—and there appears to be no law to cover the case.

The fact that insect-eating birds are less plentiful in cities is true, but I believe that the conditions are rapidly improving. Intelligent nature study has done much to lessen the ardor of the

small boy who formerly used his sling shot and airgun to such harmful advantage. I am not in favor of any system of training that will make "sissies" out of our rising generation, we will always have enough of them anyhow, but I feel certain that our young boys will make stronger, better men if they are taught some of the simple though vastly important facts of nature.

It is probable too that the English sparrow has done nearly as much as the small boy to make the life of song birds miserable in the cities. I doubt, however, if the sparrow is as black as he has been painted and I sadly fear that some published opinions of him have been biased by the writers' loss of early morning sleep. I know for a fact that the English sparrow is far more of an insect-eating bird than he has the credit of being. I have observed them extensively and bird for bird I know that the English sparrow is a more valuable species from an entomological standpoint than is our well beloved robin. Were it not for the joy the Red Breast brings when he comes to us with each returning spring, I think that we could do without him very nicely. He destroys few injurious insects, eats much fruit and literally gorges himself on our soil improving fishing worms.

One more influence against the presence of birds in cities should not go unmentioned. The peaceful (in day time) house cat is one of the worst enemies of birds we have. I never owned but one cat, but that one was the most persistent and successful hunter I ever knew, although she maintained about the house an air of innocence that would do credit to a saint. Considering the three-fold objection to the cat of being a destroyer of birds, a harbinger of

"* * * jumping cattle

In shoals and nations,"

and an active carrier of disease germs of all kinds, is it not about time that we banished this medieval pet from our modern civilization? I can hear at once the protest of a certain class of femininity and of a few others who sincerely believe in the cat as a destroyer of mice. This last argument is the only one that can be brought in favor of the feline member of our households and I have a five cent mouse trap that possesses more efficiency in its capacity than any dozen cats that ever lapped milk.

In spite of the boys and the cats and the English sparrows, we can induce many of our song birds to build near our homes if we will provide a few devices to attract them. A food supply, clean water, shelter of some trees and a few nesting boxes will work won-

ders in increasing the population of native birds. In spring, nest building material and boxes with various size holes will attract wrens, martins, blue birds and even tufted titmice and flickers;



CITY NURSERY AT INDIANAPOLIS SHOWING PIN OAKS INJURED BY FUNGUS DISEASE THAT IS AS YET UNKNOWN.

while in winter many downy woodpeckers, chickadees, nut hatches and brown creepers will be attracted by suet and fat meat nailed to a tree or post.

Let us teach the small boy to abandon the slaughter of song birds; banish the house cat to extermination and provide means to attract desirable birds to the cities. If this program could be



CITY NURSERY AT INDIANAPOLIS SHOWING HEALTHY PIN OAK TREES.

This nursery is one of the best kept in the State. It is managed in the interests of the city parks.

worked out—and it ultimately will be worked out—we would see a marked return of insect-eating birds to our city trees.

There remains for consideration only the influence of the city



THE CHESTNUT BARK DISEASE.

atmosphere in inducing insect injury to shade trees. The smoke laden air of our large towns has long been recognized as a baneful influence to the growth of trees, simply because the leaves are soon varnished over by a coat of soot. The leaves are the breathing organs of the tree and as soon as the pores through which the exchange of gases takes place, become clogged, the entire tree must suffer. In spite of smoke commissions and municipal orders it seems likely that our larger cities will continue as active producers of the dense black, and if we are to have trees in the smoky parts of town we will either have to let them take their chances or else plant varieties that have shown themselves to be smoke resistant. There are comparatively few that have good records in this direction and these few are not our most desirable trees in other respects, but they will grow where nothing else will. Chief of these trees is the despised and maligned *Ailanthus* which is destined to be one of our main street trees of the future. More will be said on this point later on in the discussion of individual trees.



FEW TREES WILL STAND FOR THIS KIND OF TREATMENT.

The one shown is a beech and died the first season after the walk was put down.

LIST OF TREES.

The following list of shade trees has been prepared as a guide for city planting. The list is followed by a table giving a brief review of the standing of the different trees from an entomological and city resistance standpoint.

AILANTHUS.

The Ailanthus is one of the most resistant trees that we have for planting along our city streets. It is also one of the quickest



AILANTHUS TREES.

growing shade trees that we have and will produce shade in less time than any other species which can be planted. The leaves are large, compound and are extremely ornamental. The trees will grow in almost any situation and seem to delight in growing in the crowded places. We often find them at their best in the densely



THE AILANTHUS TAKES ROOT IN CROWDED PLACES.

populated portions of the town where the seeds have found lodgment close to a building and have only a few inches of space in which to grow.

There are only two arguments against the Ailanthus as a street tree and these are the facts, that it is short lived and during the flowering season it gives off an exceedingly bad odor. The leaves

also possess a bad odor when they are crushed. The Ailanthus has no insect enemies and is practically never attacked by any fungous



AILANTHUS ON RESIDENCE STREET.

(An insect resistant form.)

parasite. No other tree would do so well in the down town districts in cities and sooner or later the trees must be planted in such locations if we are to have any shade at all in such places.

WHITE ASH.

The White Ash is a beautiful native forest tree with exceedingly graceful branches and compound leaves. The foliage is quite thin and even during the summer, the outlines of the larger branches can be traced throughout the tree making it desirable for locations where dense shade is not desired. The tree is very rapid in growth and is hardy and long lived.



THE WHITE ASH IS A RAPIDLY GROWING TREE.

The one in the picture was ten feet high after two seasons growth from the seed.

It is not quite so well adapted to city conditions as the Ailanthus but it does far better than the majority of trees in the down town districts. It is seldom subject to insect injury, although sometimes the trees are attacked by boring beetles. It is almost equally free from fungous diseases and it is a tree which can be heartily recommended for planting along our city streets.

BUCKEYE.

This native tree is a rapid grower and is an exceedingly handsome species, especially in the spring of the year when the mature trees are literally covered with clusters of pale, yellowish-white flowers.

The trees, however, are quite subject to insect injury and are sometimes attacked by a fungous disease which causes an early

defoliation. The trees are not resistant to city conditions and altogether it is not a desirable one to plant. The trees are especially subject to the attacks of the red spider, the Tussock Moth, the Lace Bug and the Putnam Scale.



CATALPA TREES ALONG CITY STREETS.

A desirable tree because of its low habit of growth.

CATALPA.

The Catalpa is a rapidly growing and picturesque tree, rather well adapted to city conditions. Throughout Indiana, however, the Catalpa is subject to several insect and fungous enemies which

make it a tree of doubtful value for planting. The Catalpa Sphinx Moth has caused the defoliation of Catalpa trees in large numbers throughout Indiana and the Catalpa Blight has killed many fine shade trees.

There are three species of Catalpa offered ordinarily by nurserymen. Namely, the Catalpa Speciosa, Catalpa Bignonioides and Catalpa Kempferri. It is almost impossible to distinguish between the first two species named until after the trees come to considerable size. Consequently, it is not advisable to trust the opinion of the nurseryman regarding the kind of tree which he has to offer. I have bought Catalpa trees from presumably reliable nurserymen with the assurance that they were absolutely pure Catalpa Speciosa and I have developed from these young trees not only Catalpa Bignonioides but in some cases Catalpa Kempferri as well. The Kempferri is a Japanese species and in some respects seems to be more hardy than the native varieties. It is to be distinguished by the fact that the leaves are somewhat sharply lobed and the seed pods are exceedingly small in diameter and are borne in large clusters.

Where the owner is prepared to spray the trees and give them the best of care, the Catalpa can be planted with assurance of success. It is almost certain, however, to require this attention sooner or later in its life. Personally, I prefer the Catalpa Bignonioides for street planting, owing to the fact that the trees are not as symmetrical and uniform as are the trees of the Catalpa Speciosa. The majority of all trees offered by nurserymen are of this species so that the planter is reasonably sure of securing the Catalpa Bignonioides whether he really wants it or not.

CHESTNUT.

While the Chestnut is exceedingly resistant to insect injuries, it is not a desirable tree to plant along crowded city streets. On the streets in the outer districts where there is more room and better air, the chestnut will make a desirable tree. Like the Oak it must have plenty of root room and a good atmosphere in which to develop its greatest possibilities.

In some sections of the east, chestnut bark disease has destroyed thousands of trees; in fact in some States, this disease threatens to exterminate this tree. The Government is now at work in an effort to destroy all trees infested with the chestnut bark disease and it may be that the trouble will be stamped out before it

reaches our western districts. There are one or two other diseases of the chestnut which sometimes destroy the tree. For this reason, its resistance to fungous injury has been placed somewhat lower than it would ordinarily be, although in some districts the tree is perfectly hardy and the diseases mentioned do not occur.



COFFEE TREE.

A good tree for open planting.

KENTUCKY COFFEE TREE.

The Coffee tree is exceedingly resistant to insect injuries. I know of very few insects which do any damage to the tree and of none that does any important damage. It is also exceedingly resistant to fungous injury. I have never seen the tree tried in the crowded districts of a city, but from the fact that it is one of our native forest trees I am afraid that we can not expect much from it under the adverse conditions of city life. For the outer districts where the soil condition and atmosphere are better, it is an excellent tree to plant.

THE ELM.

Of all of the trees that are planted for shade in the cities, the elms are most liable to be injured by insects. Both European and American elms have a host of enemies, many of which are difficult to control and some of which prefer the elm to any other food plant. The Elm Tree Borer, the Scurfy Scale of the elm, the Spiny Elm Caterpillar and the Elm Leaf Beetle are insects which prey on this tree, almost to the exclusion of any other. In addition, the tree is often injured by the Woolly Louse of the elm, by another Spiny Caterpillar, by the Tussock Moth, Bag Worm Moth and frequently by the Cottony Maple Scale. There are many other trees that are, to my mind, the equal of the elm in beauty that could very easily be planted in preference to the elm in our parks and cities.

Any one who plants the elm trees must be prepared to spend large sums of money in protecting these trees later on in their growth. I understand that one of the large colleges of the east spent an average of \$18 per year per tree to protect the elm trees which stand on the college grounds. These, of course, are large trees, but it will give some idea of the extent of the insect injury and the cost of its prevention. The elm is somewhat resistant to fungous injury and maintains itself in cities fairly well. The only drawback to it is the extreme liability to insect injury. This injury is so great that it will not pay the cautious planter to attempt to grow elm trees in our present day condition.

The European elm is an introduced form which lacks much of the beauty of the American elm and is somewhat more subject to insect injuries than the native form.

THE GINKO.

This Asiatic deciduous Conifer has shown itself to be one of the best trees that we can plant along our city streets. The trees are quite symmetrical and like most of the other Conifers grow tall and more or less cone shaped. The fact that the leaves are shed in the fall of the year eliminates this tree from the objections urged against the native evergreen Conifers in that the leaves escape the injury of the extreme smoke of the winter. The tree is of a fairly rapid growth but presents a somewhat straggly appearance until it is several years old. Even at its best, the Ginko would probably be considered more of an oddity than a tree of beauty, for it lacks much of the grace of our native trees. It is hardy, resistant to both insect and fungous injuries and withstands our city conditions. I should recommend the tree for rather general planting in our large towns.

HORSE-CHESTNUT.

While the Horse-Chestnut is a rapidly growing and rather beautiful tree, it is quite subject to insect injuries and is frequently injured by the attacks of various fungi. It does not stand the dry soil conditions of our cities as some trees do and is recommended only for planting in the wider streets in the outer districts of the town.

The tree is especially subject to the attacks of the Tussock Moth, which frequently result in the complete defoliation of the tree. The Putnam Scale is another pest which is sometimes destructive to this tree and on a few occasions the common lace bugs have done considerable damage.

It is another one of our shade trees which is frequently badly injured by the attack of the red spider. This pest usually occurs in injurious numbers only in dry seasons, when its injury can be prevented by a liberal use of water, not only around the tree but on the leaves and branches as well.

HICKORY.

While the various hickories are desirable for planting in parks and along streets where they will have plenty of room, they are not well adapted to city conditions. Where they are grown it is well to plant the nut where the trees are to remain, as the young trees do not stand transplanting well.

HACKBERRY.

The Hackberry is one of the trees that has given very excellent results on some of the crowded city streets. It is quite resistant to various insect injuries and is not often attacked by any fungous disease of any importance.

Several years ago, the Hackberry trees in the Indianapolis parks were attacked by an epidemic of a certain bracket fungus. Specimens of this fungus were sent to Wabash College and to Cornell, but no positive identification of the species was made at either place. This fungus attacks the tree on the trunk usually about two or three feet from the ground and appears to destroy the tissues above and below the point of attack. The large brackets appeared in early summer and remained on the tree indefinitely. An examination made last summer showed that the dry weather of this season had prevented the development of the fungus to any serious extent. No brackets were found to be present on the trees that had been badly infested. On some trees the work of the fungus would be very easily observed by the successive layers of dead bark extending out from a common point of infection. The condition is well illustrated in the accompanying photograph.

In case this disease should attack the tree, the proper method to employ would be to cut out all of the diseased tissue and paint the cleaned wound with a solution of corrosive sublimate in strength about 1 to 1,000. When this solution is dry the wound can then be painted over with pine tar and if the cavity is deep enough it can be filled with cement. As a rule, however, the injury of this fungus is superficial and there will be nothing left to fill with cement.

The hackberry is quite resistant to the moisture and atmospheric conditions of the city, although in dry seasons the tree is sometimes defoliated by the red spider. It is probable that this pest is worse on the hackberry than on any other tree. As I have observed the work of this mite only in the city of Indianapolis, I hesitate to condemn the hackberry for city planting on that account. Consequently, in the table of Comparative Immunity I have rated the hackberry somewhat above other trees in resistance to insect attacks.

LINDEN.

I wish that the Linden tree did not have so many insect enemies, for I would certainly like to be able to recommend it for planting along our city streets. The tree is not only beautiful,

hardy and of rapid growth, but it is one of the few trees which yield a large quantity of nectar for the honey bees to use for the manufacture of honey.

It is subject to so many insect pests, however, that I doubt whether it would be wise to recommend it for planting under the adverse conditions of our city streets. The Tussock Moth and Bag Worm Moth annually defoliate many trees of this species in our large cities and so stunt their growth that they never make a perfect specimen, as they otherwise would. In addition to these two leaf-eaters, San Jose Scale, Cottony Maple Scale, the English Walnut Scale and the Putnam Scale are all commonly found on this species of tree.

Occasionally, the trees are defoliated by the attack of a leaf spot fungus. When the Linden can be grown in the open country, where it will have plenty of soil moisture and clear atmosphere in which to grow, it is an admirable tree to plant. I would recommend it for many situations, but not for city streets.

BLACK LOCUST.

The Black Locust is one of the trees not native to this section, but which came here with the earliest settlers. We find many old Black Locust trees growing around the homesteads which were established by the early pioneers, and as a rule around the homesteads which were established by those pioneers who came to this country from western Pennsylvania, where the Black Locust is a native. This tree has also entered Indiana by way of the Ohio River, the seeds having been brought down by the floods in that stream.

The tree has one serious insect pest which is so universally distributed and so severe in its injury that it makes the tree undesirable for planting purposes.

HONEY LOCUST.

This graceful, hardy tree should be more widely planted not only in our city streets but throughout the country as well. This is one of the most beautiful native trees that we have and is quite resistant to both insect and fungous enemies and further withstands the adverse conditions of our city streets exceedingly well.

In dry seasons, the Honey Locust is sometimes injured by the attacks of the red spider, although this injury is seldom sufficient to cause any damage to the tree. The fact that the tree is covered

with formidable thorns makes it an exceedingly desirable nesting place for birds. In its branches they are fully protected from the predatory house cat.

MAPLES.

NORWAY MAPLE.

Of all of our maples, it is probable that the Norway is the best adapted for planting along the city streets. It is quite resistant to insect injuries and is seldom, if ever, attacked by any fungous disease. It also seems to be able to withstand the dry soil conditions of the city, although within recent years the Norway has shown some injury of this sort in Indianapolis. In such cases the leaves wilt in midsummer and frequently will fall to the ground in large numbers.

My chief objection to the Norway Maple is the fact it is not a native tree and I do not like its habit of growth. When you have seen one Norway Maple you have seen all of them. They are absolutely uniform in their development and have but one redeeming feature in their appearance. This is during the time when they are in blossom. A row of Norway Maples in full bloom is certainly a gorgeous sight, for the clear light yellow of the blossoms makes each tree a perfect mound of color.

SUGAR MAPLE.

The Sugar Maple is quite resistant to fungous and insect enemies, but it is not adapted for planting along our city streets. The trees must have an abundant supply of moisture if they are to succeed. Several years ago, the federal authorities planted Norway Maple trees around the post-office building at Indianapolis. They were planted in a narrow strip of soil lying between the curb and the sidewalk. This, with the exception of a small grass plot in front of the building was the only exposed soil for several hundred yards in any direction from the trees. Had any intelligent landscape architect been consulted, he could have told the authorities at once that the trees could not possibly grow in that situation. The trees were, apparently, planted blindly, and as a result they all died the first season.

This planting was followed with another planting of Sugar Maples which are even harder to grow than are the Norways. The hard maples died even in shorter time than did the Norways, as could have been predicted by any one familiar with the tree. These trees have been replaced from time to time until today there

is a straggling row of half dead trees extending around the federal building. None of them are any larger than they were the day that they were planted and it is safe to say that none of them ever will be any larger.

There are two criticisms to be made on a planting of this sort. In the first place, the trees that were selected were not adapted to the soil conditions that they had to endure. In the second place, the location selected for the trees is not one in which trees should be planted at all. The federal building is a magnificent piece of architecture and it would be a mistake to plant a row of large trees around such a building. Good taste and a general sense of the fitness of things should suggest that a building of this sort would look better if it is allowed to occupy a large space without the detracting influence of trees around it. The place where the trees were planted could very well have been used to plant small growing shrubs or it would have been fully as effective to keep the narrow plat between the sidewalk and the curb in fresh green sod.

SOFT MAPLE.

The Soft Maple is an exceedingly rapid growing tree and one that has been extensively planted along the city streets in the past. So extensively in fact, that we have abundant data on which to condemn it as a city tree. Few trees have more insect enemies and they are frequently attacked by fungous diseases of considerable importance. The tree is more resistant to the soil conditions of the city than is the native hard maple, although not quite so resistant as the Norway. Its susceptibility to insect attacks, its danger from fungous diseases and the fact that it is short lived makes it an undesirable tree for city planting.

RED MAPLE.

It is a surprising fact that the Red Maple which in a state of nature prefers to stand with its feet in water makes a quite successful tree for city planting. It is resistant to insect and fungous enemies and is far preferable for street planting than the native soft maple. It is almost as rapid growing a tree as the soft maple.

PIN OAK—RED OAK.

These two oaks are well adapted for planting along the streets where they will not be too crowded and where the atmosphere of the city is not too dense. They are both quite resistant to insect enemies and have very few fungous diseases. Last summer we

found a fungous disease attacking the Pin Oaks in the city nurseries at Riverside Park, but so far the study of the disease has not progressed far enough to make a definite statement regarding it at this time.

Contrary to general supposition, these two oaks are not of slow growth, the Pin Oak being quite a rapid grower and the Red Oak being almost as fast.

PINE.

WHITE, SCOTCH AND AUSTRIAN.

These are the three principal species of pine planted for shade and ornamental purposes, in our cities. Like all other evergreens they are unsuited to city conditions owing to the fact that the leaves remain on the tree throughout the winter and become so clogged with smoke and soot in the winter time that the tree suffers materially. Where the trees can have plenty of room and good atmospheric conditions of the country, the white pine will probably make the most successful tree, although the Scotch and Austrian pines are both excellent. Personally, I prefer the white pine because it is a more rapid grower and because it is a native American tree.

These trees have but one important insect pest in our locality and this is the pine scale, which is mentioned elsewhere in this report.

SPRUCE.

NORWAY SPRUCE.

Were it not for the fact that the Norway Spruce is an evergreen and subject to the general objection against evergreens, this would make an admirable tree for planting on our city streets. It is an excellent tree for small towns or for the country, where it can have a reasonably clean atmosphere in which to develop. It is sometimes attacked by the pine scale, but this is of rare occurrence, the Norway Spruce being one of the least injured of all our Conifers.

The Colorado Blue Spruce is a different species, a native of Colorado and possessed of more or less bluish tint.

Koster's Blue Spruce is a horticultural variety of the Colorado Blue and is of a more pronounced blue color than is the Colorado form. Neither of them seems to thrive quite as well as the Norway Spruce, although occasionally we see fine specimens.

SYCAMORE.

The native Sycamore is ordinarily a tree of the water courses and yet we find that it is able to resist the dry soil conditions of our city streets almost as well as any tree that we have. Syc-



THE SYCAMORE THRIVES EVEN IN THE DRY SOIL OF CITIES.



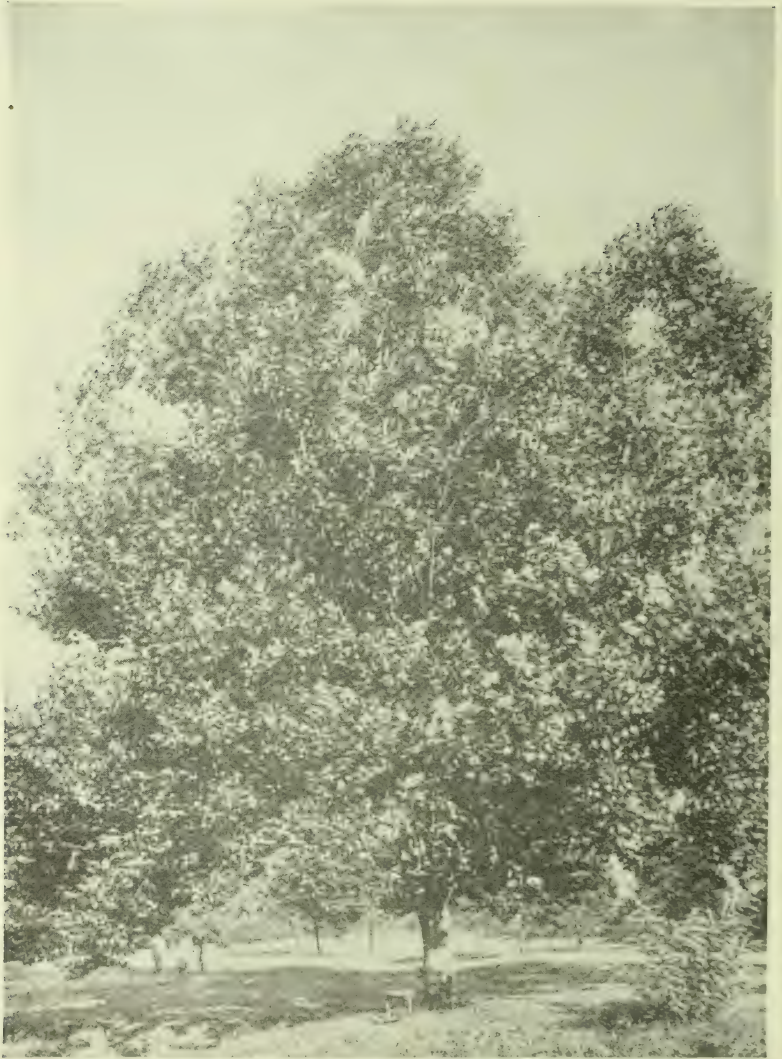
EFFECT OF FUNGOUS DISEASE ON SYCAMORE TREES AT HOBBS' NURSERY.

mores are also comparatively free from insect injury and it is seldom that we find any serious insect depredations present on the leaves or trunk.

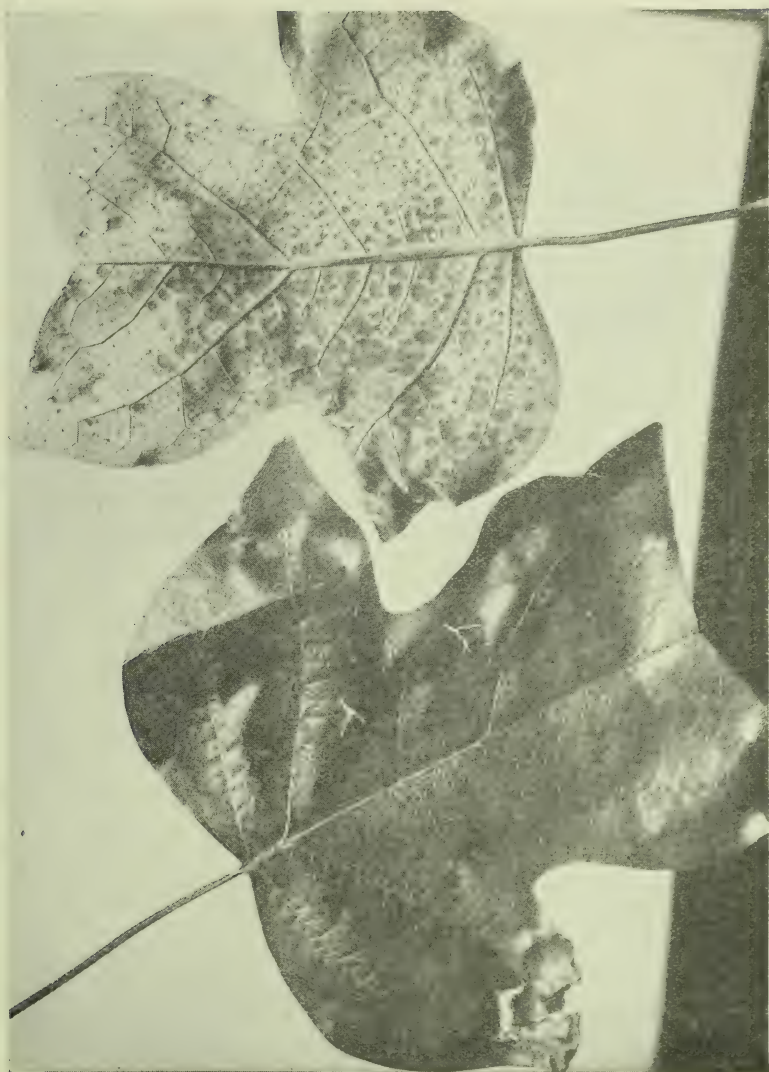


SYCAMORE TREES KILLED BY FUNGOUS DISEASE.

In recent years an important fungous disease has made its appearance and thousands of sycamores have been destroyed by it. For this reason the rating of the sycamore in regard to its susceptibility to fungous disease is necessarily low. I still regard it as a desirable tree to plant along the city streets.



SYCAMORE IN A CITY PARK.



LEAVES OF TULIP TREE SHOWING NORMAL CONDITION AND EFFECTS.
OF LEAF SPOT.

TULIP TREE.

With very few exceptions the Tulip tree, or Yellow Poplar of commerce, is one of the very best to plant along our city streets. It is not to be confused with our Carolina Poplar for, in fact, the tree is not a poplar at all but is a member of the Magnolia family. It is rapid growing and makes a beautiful tree that is strong and long lived; exceedingly free from insect injuries and nearly as free from the possibility of fungous injury.

Great care must be used in planting the tree, as they do not stand transplanting well. The chief mistake that is made in this particular is in attempting to plant too large a tree. A small tree, two or three feet high, will become established quickly and in the course of ten years will have a great advantage over a tree eight or ten feet high and several inches in diameter which was planted at the same time.

Two of the handsomest Tulip trees that I have ever seen for their age were growing in the yard of Mr. C. J. Pickering of Middletown. At the time I saw the trees that were thirty feet in height. Mr. Pickering told me that when he planted the trees eleven years ago they consisted of two leaves each, being simply tiny seedlings that he had brought in from the woods.

BLACK WALNUT.

The Black Walnut is not adapted to our city street conditions, but makes an excellent shade tree on large lawns where the soil conditions are more nearly normal, or perhaps it would do well on the streets of small towns. The tree is very rapid in its growth and lives to a great age. It does not stand transplanting well and, like the hickories, the nuts should be planted where the trees are to remain.

Frequently the Walnut is defoliated by the Walnut Worm, but, as a rule, this defoliation comes late in the season and but little injury results to the tree. If the trees are carefully watched, the injury can be prevented almost entirely.

WEeping WILLOW.

This is another tree of our water courses that has shown itself to be well adapted to planting along the city streets. Some of

the best trees in the down-town sections of Indianapolis are of this species. This tree is exceedingly resistant to fungous diseases but is somewhat subject to the attacks of leaf-eaters such as



THE WEeping WILLOW IS A GOOD TREE FOR CITY CONDITIONS.

the Bag Worm Moth and the Tussock Moth. With these exceptions, the Weeping Willow can be recommended for planting in the crowded parts of our larger cities.



WILD CHERRY.

A native tree that is not recommended for shade tree planting.

TABLE INDICATING RELATIVE IMMUNITY FROM INSECT INJURY,
FUNGOUS INJURY AND GENERAL RESISTANCE
TO CITY CONDITIONS.

SPECIES.	Insect Injury.	Fungus Injury.	City Conditions.
Ailanthus.....	10	10	10
Ash, White.....	9.5	9.5	8.5
Buckeye.....	6	6	4
Catalpa.....	6	5	7
Chestnut.....	9	5-10	4
Coffee tree.....	9.5	8	4
Elm.....	3	8	7
Elm, European.....	2.5	8	7
Ginko.....	10	10	9
Hackberry.....	7	9	6
Hickory.....	6	9	4
Horse Chestnut.....	6	6	5
Linden.....	5	8	4
Locust, black.....	4	8	5
Locust, honey.....	7	9	7
Maple, Norway.....	7-9.5	10	7
Maple, Sugar.....	7	10	3
Maple, Soft.....	4	6	6
Maple, Red.....	8	8	7
Oak, Pin.....	8	10	6
Oak, Red.....	8	10	6
Pine, white.....	8	10	2
Pine, Scotch.....	8	10	2
Spruce, Norway.....	9.5	10	2
Sycamore.....	9.5	4	8
Tulip Tree.....	10	9	8
Walnut, Black.....	5-8	9	3
Willow, Weeping.....	6	10	9

INJURIOUS INSECTS.

A list of the more common insects injuring shade trees in Indiana including a few forms that are either present or are liable to be present in the next few years.

BORING INSECTS.

Pigeon Tremex (Tremex Columba). This common borer belongs to the hymenoptera and is one of the few members of this order which is injurious to our shade trees. The borers prefer to work in the maples, especially the native hard maple and, in some sections of the State, they have done a great deal of injury to the shade trees. This is notably true of some of the smaller towns in the northern part of the State. The eggs are laid in cracks in the bark, preferably in trees that have been weakened by some other agency. This fact holds true in regard to a great many of the boring insects; that is, they are more liable to attack trees that have been injured by some prior cause.

The young borers work in the body of the tree, and, frequently, may be present in the tree for a number of years before causing its death; differing from some of the other borers, in this respect, that do their work for the most part between the bark and the wood, thus girdling the tree.

The life cycle of the Pigeon Tremex is approximately twelve months. The adult female sometimes becomes fastened to the tree in the act of laying the eggs in the cracks of the bark, as the ovipositor becomes wedged in the bark tissues and holds the insect captive. One of the interesting things about this insect is the fact that it has a characteristic parasite in the *Thalessa lunator*. This parasitic insect is well illustrated in the accompanying photograph and no description is necessary.

One of the interesting points regarding this boring insect and its parasite is the fact that the parasites are much more often found than are the borers themselves. We frequently have people sending in specimens of the parasite and almost invariably they claim that the insect was caught in the act of boring holes in their maple trees. As a matter of fact, the long ovipositor of the *Thalessa* Fly is used to reach to the interior of the boring of the



THALESSA FLY.

pigeon tremex and to lay the eggs in that position. Probably a good many *Thalessa* flies are destroyed by people who are ignorant of their value. It is probable that this one parasite does more than anything else to keep down the numbers of the Pigeon Tremex and for this reason it is not a widespread pest in this State.



A TREE THAT IS BEING KILLED BY THE ELM BORER.

Wherever the insects are found to be injurious the borings should be carefully cut out with a sharp chisel and wherever the insects are found to be present they should be destroyed. It may be of value to inject a small quantity of carbon bisulphide into the borings of this pest and plug the mouth of the tunnel with putty or some similar substance. Where this work is carefully done and persisted in, the borers can be exterminated after one season's effort.

This method of treating borers is not practical except for those

forms which work in the central part of the tree. Borers which work between the wood and the bark are more difficult to reach, owing to the fact that their channels are very frequently plugged with sawdust, and are often so long and tortuous that the carbon bisulphide does not seem to be effective.

Elm Borer (*Saperda Tridantata*). This exceedingly injurious beetle affects all of our native elm trees to a greater or less extent. As a rule, the beetles prefer to attack trees that have been



ELM BORERS.

weakened through some other cause and for this reason, we find that they are far more common in cities and towns than they are in the open country, although occasionally we find that the elm trees in the native woods are seriously injured.

The adult is a beetle about one-half inch long. The antennae is longer than the body. The body is marked with red. The larvae are characteristic flat-headed borers, that is, the head end of the grub is flattened, and not only the head but the segments immediately behind the head are flattened, giving the insect the characteristic hammer shape. The adult beetles appear in early summer and the eggs are laid from June till sometime in August.

The length of the life cycle is not known, because the life history of this form has never been completely worked out. The larva of various sizes can be found in the trees at the same time, so that it appears that the life cycle is probably more than one year.

Several years ago the insect became unusually bad in the city of Vincennes, and in the course of three or four years it destroyed



ELM BORERS.

practically every elm tree in the town. The insect is now at work in the northern part of Indianapolis and the adjacent country and it is probable that a large number of the elms in the city of Indianapolis will be destroyed within the next few years.

There is practically no remedy for the elm borers except to cut and burn all infested trees and in this way prevent the spread of the insects to other healthy trees. This remedy was suggested a number of years ago in the city of Vincennes, but it was not



WORK OF BORERS IN ELM

followed out as it should have been. Consequently, the borers took tree after tree until, today, there is practically not an elm left in the town.

Common Flat-Headed Borer (*Chrysobothris femorata*). The larva of this beetle is slender with a very much enlarged flat head, resembling in this respect the larvae of the elm borer. The adult is about one-half inch long, gray in color and the antennae are not as long as the body. The eggs are laid the last of May in crevices in the bark and the burrows that are made between the bark and the wood are flattened in cross section and are not cylindrical as in the case of the Long Horned Borers. This beetle attacks many kinds of shade trees and, also, is sometimes found working on fruit trees. What has been said about the preceding forms applies to this insect as well. Like the other borers it is exceedingly difficult to control, and the best that can be done is to keep the trees in strong, healthy, vigorous condition, so that they will be in a condition to resist the attacks of the borer at the start. When they first attack a tree the borers are rather difficult to detect, and usually their presence is not discovered until considerable damage has been done. Where by any chance they can be discovered before any serious injury has taken place, they can be cut out and destroyed. There is practically nothing else that can be done to remedy their injury.

The Locust Borer (*Cyllene robiniae*). This handsome beetle is about three-fourths of an inch in length, black in color and marked with brilliant yellow. The adults emerge in the fall of the year, and lay their eggs on the bark of the Black Locust, confining their depredations almost exclusively to this tree. When the young larvae hatch, they immediately bore into the tree and work throughout the woody tissues. This borer is especially destructive to the young locust trees the first few years after they are planted. It has caused a great deal of injury to the plantings of black locust which have been made in various parts of the State by farmers who were attempting to grow their own fence posts. I know of many plantations of black locust that have been completely ruined by the work of this beetle. In fact, the injury is so serious and so certain that I do not recommend the planting of black locust save in a very few restricted areas where the insect does not appear to do any considerable damage. Over a large portion of the State the damage from the locust borer is almost as certain as death and taxes.

Many years ago the black locust was planted by some of the early settlers, especially the ones that came from western Penn-

sylvania, as a shade tree around some of the old homesteads. These old trees are being cut down in a great many instances, and it is very interesting to note that the locust borer was present at an exceedingly early date. Many of the old black locust trees that are two feet or more in diameter, at the present time, show that they were badly injured by the locust borers when they were a few inches in diameter. Evidently, the black locust is able to overcome the work of this beetle to a certain extent. If a tree can survive the first attack without dying to the ground or being blown



DEAD BRANCHES IN THE TOPS OF MAPLES USUALLY MEAN THAT A BORER IS AT WORK.

over by the wind, it is entirely possible that it may live to an old age. In selecting trees for forest planting, however, we must not base our conclusions on the few old veterans that have survived the attacks of the locust borers in the early days, for we do not know anything of the vast numbers of locust trees which must have succumbed to the attack of this beetle early in their life history.

Hickory Borer (*Cyllene pictus*). This beetle is almost identical with the locust borer except for the fact that it confines its work to the hickories and, also, in the fact that the adults appear in the spring of the year instead of the fall. For a long time it was supposed that the locust borer had two broods each year—a

spring and a fall brood—but it was later discovered that the spring form was not the locust borer at all, but the form under discussion. The beetle is not common in Indiana and is not a serious pest to hickory trees in this State.

The Oak Twig Pruner (*Elaphidion villosum*). This small beetle causes an interesting, though not serious, injury to oak trees and sometimes to trees of other species. The eggs are laid



OAK PRUNER AND ITS WORK.

in July on the twigs of the trees and the larva bores to the center of the twig toward the base, later eating away most of the woody tissue, so that the branch is held only by the bark. The larva then retreats into its burrow and plugs up the end of the boring with a plug of sawdust.

The insect depends upon the high wind to break off the branch at the point where the tissues are largely eaten away. In this way the larva reaches the ground in safety and the branch is kept moist on the ground among the dead leaves during the winter. The life cycle is completed in one year.

The insect does practically no injury save to especially fine specimens of trees that are planted in parks and on lawns. In any case, however, the extreme injury will amount only to a slight pruning of a few of the outer branches.

Tent Caterpillar (*Malacosoma americana*). This exceedingly destructive caterpillar winters in the egg state, and often as many as three hundred eggs occur in a single cluster. The young caterpillars hatch in the early spring, feed on the opening leaves and frequently do great damage to a tree. The larvae build characteristic nests or tents in which they remain except when they emerge for feeding. These nests frequently reach considerable size and are conspicuous and unsightly. The full-grown caterpillars are dark in color with bluish-yellow spots. Down the back there is a continuous line of white. The larval life is something over a month and the insect then enters the pupa stage, in which it remains for a little less than a month. The adults emerge in the early summer and lay their eggs on the twigs for the next year. The Tent Caterpillar is a native American insect and its original food was doubtless the Wild Cherry, which it still attacks very frequently and usually in preference to the apple. It sometimes occurs in very injurious numbers in apple orchards however, and is a form which must be watched for and fought vigorously when it appears. In speaking of the first American apple trees Thoreau says, "The Tent Caterpillar saddled her eggs on the very first twig that was formed and it has since shared her affection with the Wild Cherry."

Being an active leaf-eater, this caterpillar is generally controlled by an arsenical spray. In orchards that are regularly sprayed for the Codling Moth there will be little to be feared from this form.

Bag Worm Moth (*Thyridopteryx ephemeraeformis*). This is one of the most important leaf-eating insects not only to shade trees but to orchard trees as well. It occurs over the entire State and is a cosmopolitan feeder, eating the leaves of a large variety of trees. It is especially bad on the Ash Leaf Maple or Box Elder, and is also notably injurious to the Arbor Vitæ. It is perhaps the worst pest to the evergreen trees that we have; defoliating almost any tree of evergreen and the defoliation is almost invariably followed by the death of the tree.

The young caterpillars emerge from their cocoons in early June and immediately spin cocoons of their own, which they carry

upright for several days, adding to the cocoon as they increase in size. The small bag or cocoon is soon too heavy to be carried in an upright position and it falls over to one side and is dragged about by the caterpillar during the rest of its feeding season. The caterpillars seldom ever emerge from this bag but carry it about with them while they are feeding on the leaves during the summer. They become full-grown about the last of August or the first of September. At this time, they attach their bags or cocoons to the twigs of trees where they are to remain during the winter. Late in September the adult moths appear, the females



BAG WORM. (Adult male).

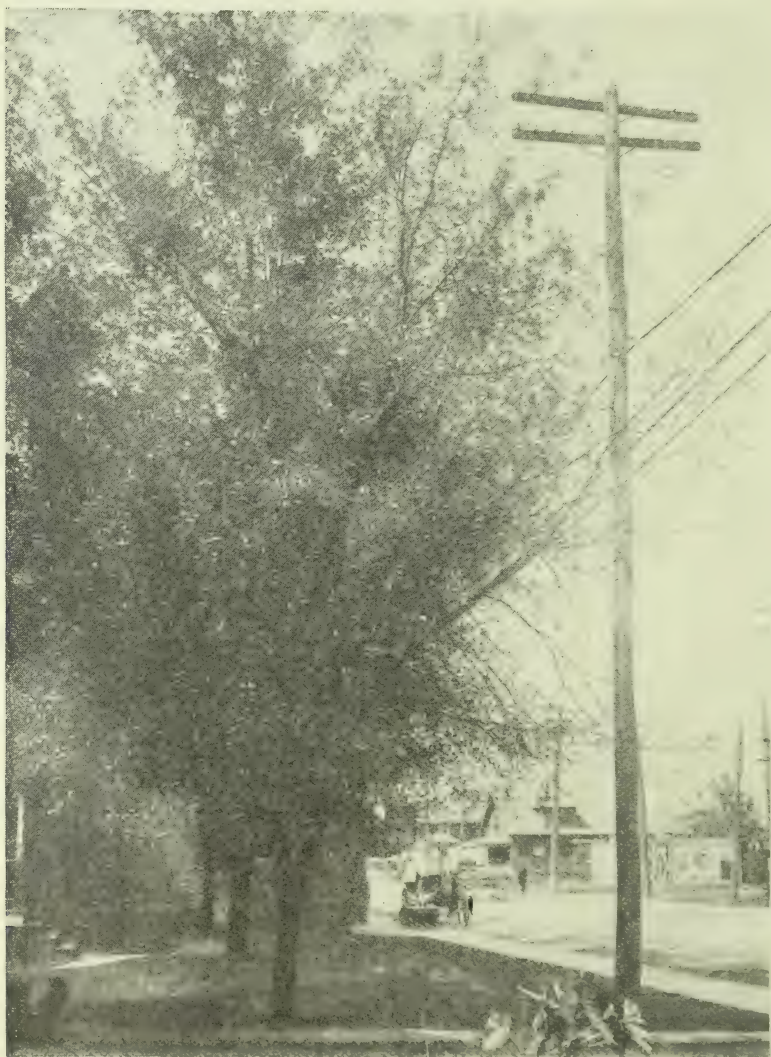
never leaving the cocoon until after the eggs are laid. The eggs are laid in the cocoon previously occupied by the female cocoon and remain in this cocoon during the winter. This is practically the only case where we have the moth passing the winter in the egg stage inside of the cocoon.

Some of the East India tribes who believe in the transmigration of souls have the curious tradition that the bag-worm moths represent the souls of men who stole firewood while they were upon earth, and are paying for it by carrying these small bundles of twigs around on their backs during their insect life.

Being an active leaf-eater, the bag-worm moth is readily controlled by the use of any arsenical poison, such as Paris green or arsenate of lead. The arsenate of lead is preferable because it adheres better to the leaves.

The cocoons can also be gathered from the trees during the winter time and destroyed by burning. If all of the cocoons are removed from the tree, the tree can be protected the following summer by the use of some sticky banding material which will

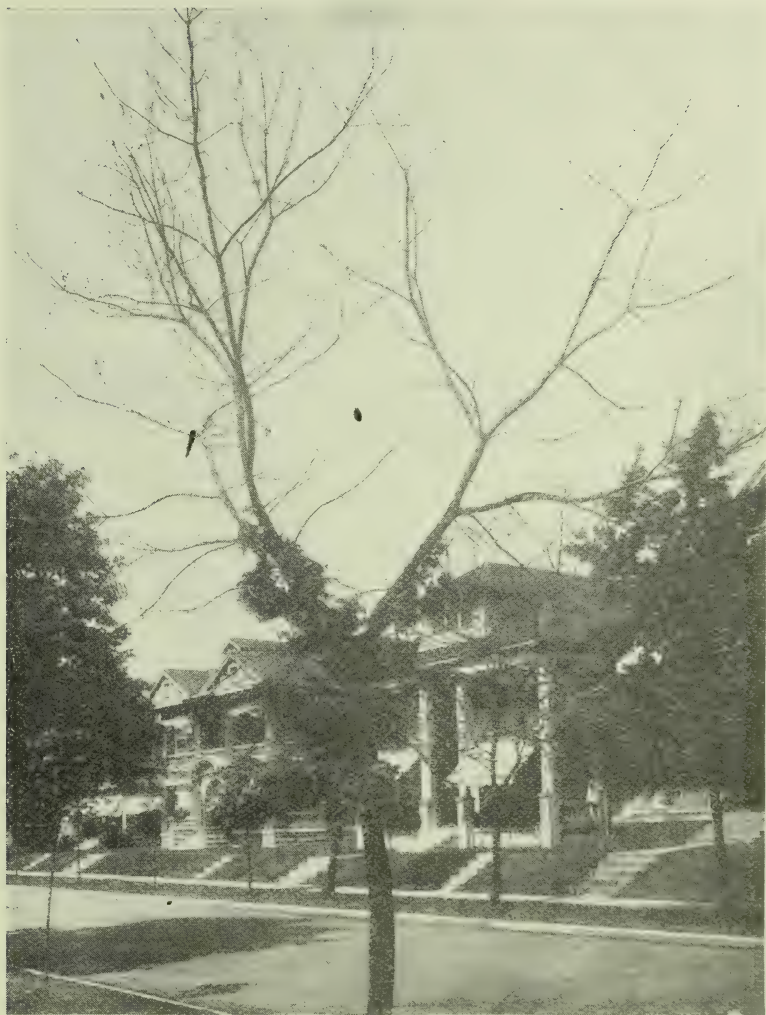
prevent the larvæ from crawling up the trunk of the tree. Since the female moth does not fly, the worms can only reach the leaves by crawling up the trunk, and the use of any sticky preparation



THIS TREE WAS FULL OF BAG WORMS WHEN THE PICTURE WAS TAKEN.

The leaves were nearly all eaten and the foliage effect is given by the quantities of worms.

on the trunk will prevent a reinfestation of the tree. In selecting banding materials for this purpose care should be used. No preparations containing tar or mineral oil should ever be applied to the trunks of trees. Ordinary cotton makes a satisfactory band-



TREE KILLED BY BAG WORMS IN INDIANAPOLIS.



A BAG WORM MOTH IN WINTER.

ing material but it is not lasting. It becomes ineffective after a few hard rains. One of the best materials that I have ever used is a preparation put out by the manufacturers of a brand of sticky fly paper. This sticky material is smeared on the trunk of the



TREE KILLED BY BAG WORMS.

tree in a narrow band and is convenient to use, remains sticky for a long time and the manufacturers claim that it will not injure the trees. I have never known of any tree to be injured by its use.

The Fall Web Worm (*Hyphantria cunea*). The larva of this moth is familiar to nearly everyone as being a common pest on many of our native and cultivated trees. The insect is perhaps most common on the wild cherry, where its large, ugly webs may



THE NEST OF THE FALL WEB WORM.

be found season after season. In habit the Fall Web Worm is similar to the tent caterpillar, though the latter may always be recognized as a distinct form simply because of the difference in season.

The Fall Web Worm occurs late in the year and builds a web as soon as the caterpillars hatch from the eggs, and does its feed-



NEST OF THE FALL WEB WORM REMAINS IN THE TREE ALL WINTER.

ing in and around these webs. The webs are persistent on the tree throughout the winter as a dirty, tangled mass of dead leaves and insect remains loosely bound together with coarse silk. The Fall

Web Worm passes the winter in the pupa stage in a loosely made cocoon, sometimes within the borders of the old web. Where the form occurs on cultivated trees the webs should be destroyed with a torch, and any living caterpillars which fall to the ground should be destroyed. A serviceable and simple torch for this purpose consists of a good-sized corncob soaked in coal oil and fastened to the end of a long pole.



LIFE HISTORY OF CATALPA SPHINX.



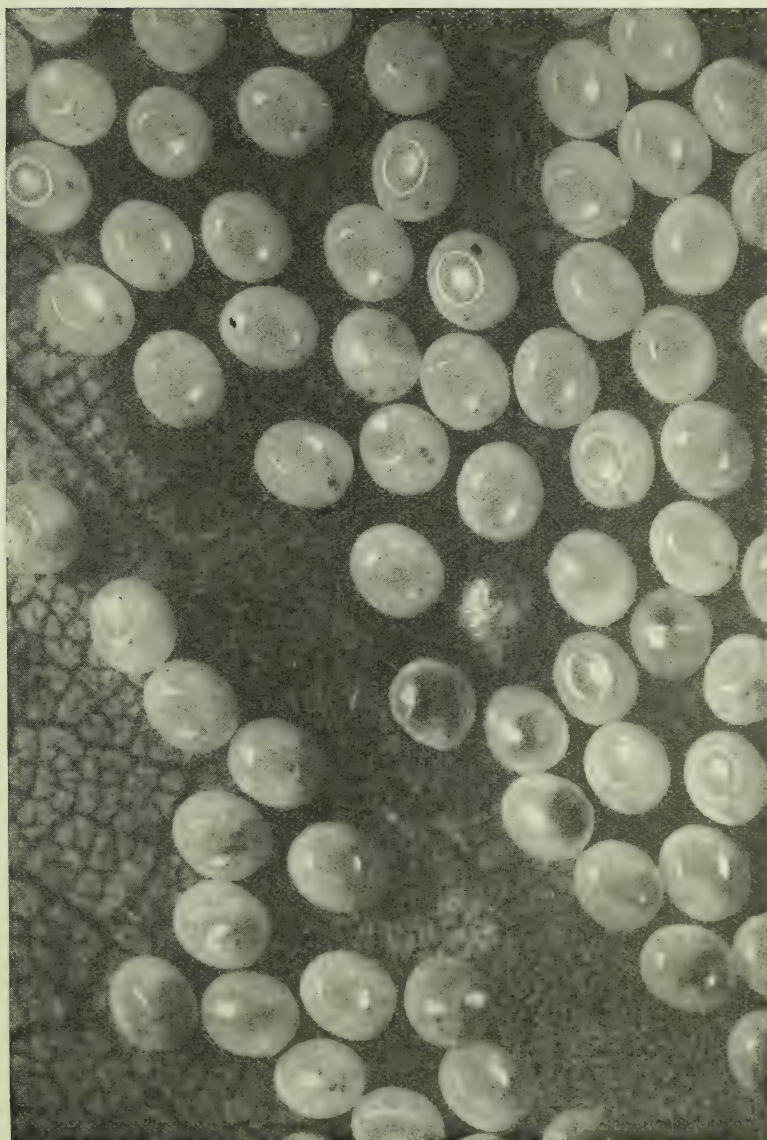
CATALPAS DEFOLIATED IN MID-SUMMER

Catalpa Sphinx (*Ceratomia catalpæ*). The Catalpa Sphinx Moth is distributed over the entire State and is now found in nearly every locality where the catalpa tree is grown. In some



DEFOLIATION BY CATALPA SPHINX.

regions it has proved a formidable enemy of catalpa plantings. I have seen plantations of the catalpa that were completely defoliated by this insect, and it is a common enemy of the young catalpa seedlings growing in the nursery.



EGGS OF CATALPA SPHINX ENLARGED



WORK OF SCOLYTUS

There are at least two broods of the insect each season, and in some localities there is possibly a third brood. The larva of the *Catalpa Sphinx* is light green, variable marked with black. Often the markings change as the caterpillar develops. At first the black markings may be confined to a few lines of spots. These spots will later merge together forming broad, black, velvety stripes running the full length of the insect.

The insect passes the pupa stage in the ground near the infested tree. The pupa varies from the typical *Sphinx Moth* in that it does not have the peculiar jug-handle tongue case.

Spraying with any of the arsenical preparations is quite effective in combating this insect, provided the trees are not too large. Arsenate of lead is perhaps the best preparation to use, as it remains on the trees for a longer period. Where the insect occurs in catalpa plantations the ground should be thoroughly plowed and harrowed in the fall of the year. This will destroy many of the insects, and if a few hogs can be turned into the area they will destroy the great majority of the pupæ.

The Engraver Beetle (*Scolytus rugulosus*). The Engraver beetles do excessive damage to many of the forest trees by boring between the bark and the wood. They have received their name because of the characteristic fashion in which they form their galleries in the living tissues. If the bark of an affected tree be peeled off, the tunnels of the insect will be found running out from one main central channel. This central portion is the brood chamber in which the adult beetle lays her eggs. The young larvæ bore in all directions from the brood chamber. As a rule, these insects attack only trees that have been weakened by some other agency, but when they do attack a tree they usually make short work of it, often destroying fine specimens. Sometimes only single branches are affected and in such cases it is well to cut off and burn the infested branch as soon as its condition becomes known.

Tussock Moth (*Hemerocampa leucostigma*). This is perhaps the worst leaf-eating pest that we have in the cities of Indiana. Many varieties of shade trees are attacked by it, but they are notoriously injurious to the Horse-Chestnut, Linden and the Maple. The Tussock Moth ranges throughout Eastern America, being a cosmopolitan insect both in range and food plant. In some seasons the larva of this moth is an exceedingly injurious form in the apple orchards where it is taken care of by the incidental spray-

ings which are part of the routine work in the management of any orchard.

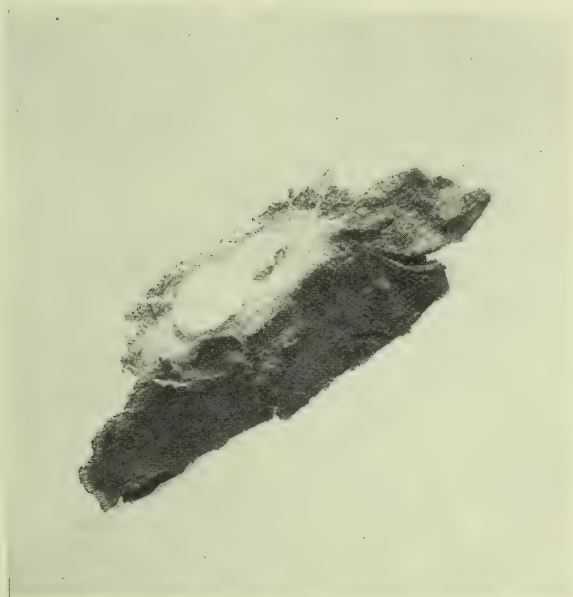
There are, normally, two broods of Tussock Moths each season,



DEFOLIATION BY TUSOCK MOTH.

although some seasons the third brood is developed. Often the third brood is killed by frost. I have often seen the caterpillars of the third brood as late as November, and it is doubtful whether

very many of these third brood caterpillars survive the winter. Normally, the insect passes the winter in the egg stage; the larvae appearing in the early spring. The adult moths mature some time in July, and the female moth usually lays the eggs directly on or very near the cocoon from which she has just emerged. These cocoons are very often built in sheltered places afforded by the overlapping weather-boards on houses and in large cracks in the bark of trees. This fact is an important



FEMALE OF THE TUSSOCK MOTH LAYING EGGS.

point in the control of the pest. If the eggs are not laid directly on the trees and since the female is wingless, it follows that any of the caterpillars that reach the leaf surfaces must do so by crawling up the trunk of the tree. Consequently, the damage from this pest can be completely prevented by banding the trees with some sticky material as has been recommended in the case of the Bag-Worm Moth. In case the larvæ should reach the leaves before their presence is detected they can be destroyed by spraying the trees with a solution of arsenate of lead in the proportion of 3 pounds to 50 gallons of water.

This is one of the native insects that is commonly controlled by parasites so that, as a rule, we do not have two years of severe Tussock Moth injury in succession.



EGG MASS OF TUSSOCK MOTH.

The Elm Leaf Beetle (*Galerucella luteola* Mull). "This imported insect is, in all probability, responsible for more ruined elm trees in the Hudson River Valley than all other destructive agencies."—(E. P. Felt.)

This European insect has been injurious through the eastern States for the last 75 years, and has wrought a great deal of destruction to the elm trees of that section. During recent years, the insect has migrated to the Ohio River Valley and about six years ago made its first appearance in southern Indiana. I have seen elm trees completely stripped of their foliage in Harrison



ADULTS OF ELM LEAF BEETLES.

County, and the pest has become an exceedingly injurious insect throughout the southern counties. In the town of Corydon, the beautiful elm trees have been stripped of their foliage, and the famous Constitutional Elm, under which the Constitution of Indiana was written, has been somewhat injured by the work of this pest. The district of Kentucky, immediately across the river from Harrison County, is badly infested with the insect, as is most of the State of Kentucky. There is no reason to suppose that the insect will not spread northward through the State of Indiana, making, in this way, another argument in favor of discarding the elm tree as a tree to plant along our city streets. With the increasing number of pests which this tree has to face it is only a short time until the elm trees of our cities will be an expensive luxury.

LIFE HISTORY.

The adult beetles pass the winter in sheltered cracks and in trash and rubbish on the ground around the tree. When the young leaves unfold, the beetles begin to eat small round holes through

them. Many leaves are thus destroyed before the main brood of the insect appears. A little later in the spring the females lay small clusters of yellow, bottle-shaped eggs on the under side of the leaves. The egg laying period extends over about a month,



WORK OF ELM LEAF BEETLE. (Adult.)

each female laying several hundred eggs. In a little less than ten days these eggs hatch and the young larvae feed upon the under surface of the leaf, leaving the veins and the upper surface of the leaf intact. Thus differing distinctly in their injury from that

caused by the adult beetle, which eats the entire tissue of the leaf from surface to surface. The larvae require about three weeks in order to complete their full growth and at that time they crawl



WORK OF ELM LEAF BEETLE. (Larva.)

down the trunks of the trees and transform to the pupa condition, either on the surface of the ground or in some shelter which they find near the tree. They are sometimes found in enormous numbers protected by the pasteboard advertising signs tacked on

trees along the roadside. In about ten days the adult beetles appear and lay eggs for the second brood. This second brood is sometimes of more serious consequence than the first brood



WORK OF ELM LEAF BEETLE. (Larva.)

inasmuch as it causes a defoliation of the trees a second time, without giving them an opportunity to recuperate from the shock of the first defoliation.

The foregoing description is probably sufficient to enable anyone to recognize the pest should it appear in their vicinity, but

owing to the fact that this insect is entirely new to a large portion of Indiana, I will give the following complete description of the various stages.

The adult beetle is a dull yellow color and each wing cover has a distinct black stripe extending from the base of the wing to the extremity just along the outside edge. The legs and antennæ of the beetle are yellow. In size, the beetle is about one-fourth of an inch in length. The eggs are bright yellow in color and at first glance resemble the eggs of the Colorado Potato Bug, although a trifle smaller in size. They are packed in a group on the under side of the leaf in clusters from ten to thirty. The very young larva is dark and covered with small tubercles bearing black hairs, giving it the general color effect of being black. The larva increases in size rapidly and molts a number of times before becoming full grown. When it reaches its full length of about one-half inch, it is dull yellow in color and with two longitudinal black stripes along the back. The pupa is about one-fourth of an inch in length and bright orange yellow in color with small black hairs or spines. Under badly infested trees the pupa can be found in immense numbers in their season and it is a good plan to gather them at this time and destroy them. This can be done either with the use of gasoline or with boiling water.

Dr. W. E. Britton reports the fact that one of the most important natural enemies of the Elm Leaf Beetle in Connecticut is the fungus which is known to botanists as *Sporotrichium globuliferum*. This fungus attacks the pupa and adult in the late summer, especially in moist seasons. During the past season we found this fungus prevalent to considerable extent on the insects which appeared in Harrison County, contrary to Dr. Britton's statement. This insect was unusually noticeable the past season, which was a very dry one in southern Indiana. The insects which are attacked by this fungus appear covered with a white mold. While this fungus will no doubt materially assist in keeping the pest under control, it must not be depended upon for too much. Wherever the insects appear the trees will have to be sprayed with a solution of arsenate of lead at the rate of 3 pounds to 50 gallons of water. By spraying the trees early in the spring as soon as the adult beetles appear, the later injury from the larvae can be prevented to considerable extent. In some sections of the east they prefer to wait until the young larvae are hatching and then spray the trees thoroughly at that time. It is claimed by some that with this practice a single spraying is sufficient to con-

trol the pest, whereas in the early spraying for the destruction of the adult beetle it is sometimes necessary to repeat the spray several times, owing to the fact that it is liable to be washed off by the spring rains. The later application applied for the destruction of the larvæ is put on after the spring rains have stopped, and the poison usually remains on the leaves throughout the summer.

Spiny Elm Caterpillar (*Vanessa antiopa*). This caterpillar is the larval stage of an exceedingly beautiful and interesting butterfly known as the Camberwell Beauty. The adult butterfly passes the winter sheltered in some hollow tree or other protected place



ADULT OF SPINY ELM CATERPILLAR.

(Camberwell Beauty Butterfly.)

and appears with the first warm days of spring, for it is our earliest butterfly. The eggs are laid in masses on the twigs of elm and sometimes on other trees. The young larvæ feed on the opening buds and young leaves of the trees, very often doing extensive injury by defoliating large branches or even whole trees. The insects rarely appear in injurious numbers two years in succession, owing to the fact that they are kept under control by various parasites. Wherever they do appear in large numbers, they can be destroyed by spraying the trees with arsenate of lead as recommended for the Elm Leaf Beetle.



SPINY ELM CATERPILLARS ON LEAF.



GRAPTA SP. IN WINTER.



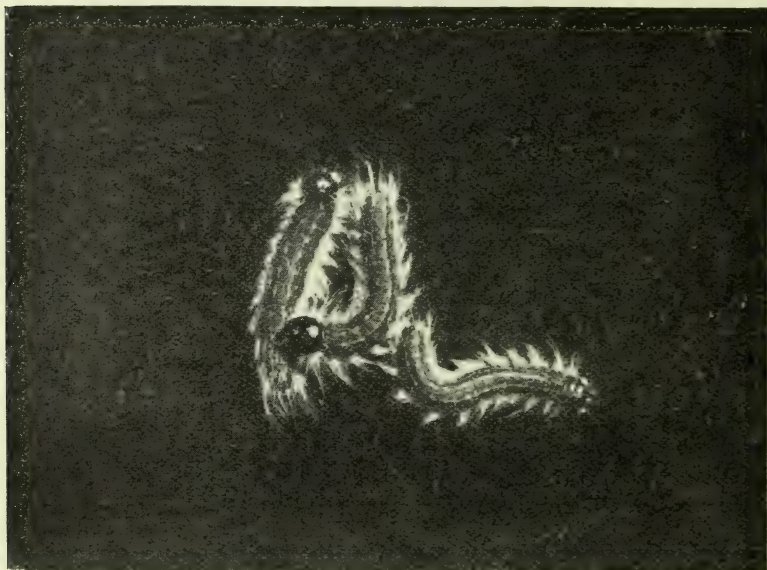
SEMICOLON BUTTERFLY.



A NEST, OF WALNUT WORMS.

Grapta Interrogationis Fab. This butterfly has a similar life history to the Camberwell Beauty and its injury is almost identical with that species. It also confines its depredations almost exclusively to the elm.

The Walnut Worm (*Datana integerrima*). The Walnut Worm is the larva of a pretty brown moth which is frequently captured by collectors in native woods. The larva confines its feeding almost exclusively to the walnut and hickory trees, where it feeds

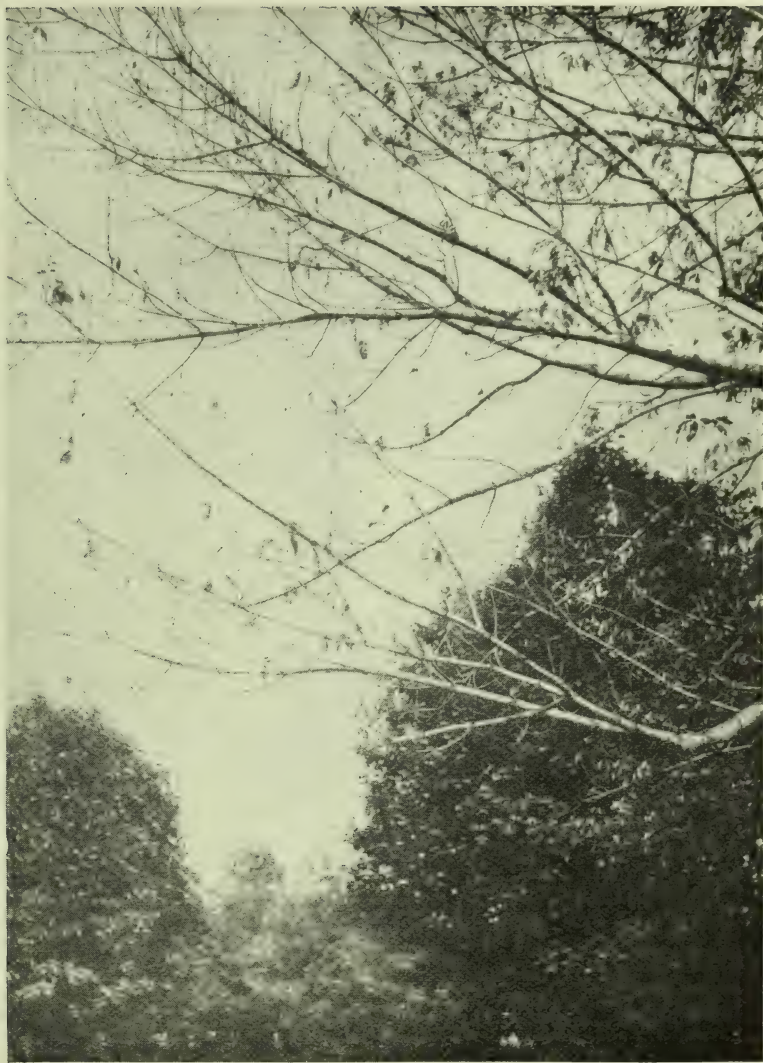


LARVA OF WALNUT WORM.

in compact colonies. The worms are quite dark in color and have conspicuous long, white hair. It has the interesting habit of crawling down the trunk of a tree and gathering in a cluster at moulting time. If the trees are carefully watched, these clusters can readily be gathered and the larvæ destroyed mechanically. The larva is well illustrated in the accompanying cut.

The June Beetle (*Lachnosterna* sp.). The June Beetle or "June Bug" is a common insect late in spring or early summer.

The larva live in the sod, feeding on the roots of grass and other plants and are the common "white grubs." Serious damage is often done to pasture lands. Deep fall ploughing and the use of kainit at the rate of half a ton per acre will drive out most of the insects.



ASH TREE DEFOLIATED BY "JUNE BUGS."

The adults are night flyers and often injure the foliage of trees and shrubs. During the last season some of the white ash trees in Crown Hill Cemetery were completely defoliated by this beetle. Since their work is done at night it is sometimes puzzling to the observer, who is unable to find an insect at work during the day. As a rule, the damage is done early in the evening between dusk and 10:00 o'clock. Arsenic in any form is, of course, effective.

The complete life history of the several species is not clearly recorded either as to the length of the larval period or as to the time of emergence of the adult. The latter seems to vary considerably and I have found recently transformed specimens from May till mid-autumn.



SEVENTEEN YEAR LOCUSTS.

The Seventeen Year Locust (*Tibicen septendecim*). The Seventeen Year Locust, or Periodical Cicada as it is more properly called, occasionally injures shade trees by laying eggs in the smaller twigs. The injury is but slight, however, and the fact that it occurs only once in seventeen years makes the insect a form which needs receive but little attention from the tree growers.

The eggs are usually laid in rough slits cut in the under side of the twig and as soon as they hatch the young Cicadas fall to the ground where they immediately bury themselves to feed on the roots of plants during the balance of their period of development.



EIGHT-SPOTTED FORESTER A COMMON MOTH.

SCALE INSECTS OF INDIANA.

In the previous reports I have treated of the more important scale insects which occur in this State and have given directions for their control. Many minor forms were left out of the former publications and it is my desire at this time to present a complete list of the scales known to occur in the State. I realize that an extended account of obscure forms would be out of place in a document intended to be strictly economic in its character. As a result most of the descriptions will be as brief as is consistent with a clear understanding of the identity of the insect. The accompanying cuts will also tend to reduce the necessity for long technical descriptions. The different species are arranged in the order given them in Fernald's Catalogue of the Coccidæ of the World and the nomenclature of that catalogue has been followed. When-



UNDERSIDE OF LECANIUM SCALE. (Magnified.)

ever there has been any doubt of the identity of a specimen, I have had my determinations verified by Dr. L. O. Howard of Washington, whom I desire to thank for his assistance in this line and for many other favors extended to me. I am also indebted to my assistant, Mr. Harold Morrison, for several new records, especially in the genus *Kermes*. All of the photographs accompanying the descriptions are originals prepared by or under the direction of the writer.

Scale insects are so called because of the fact that many of them secrete a peculiar substance which forms a distinct shell or scale over the body of the insect. This shell is simply a protective covering of the soft body of the insect proper. Thus it will be seen that when we look at a branch badly infested with, let us say, San Jose scale we do not see any of the insects themselves but only the protective scales with which they are covered. If this scale should be carefully removed we would find the soft yellow body of the insect under it. In the case of the large, rounded scales such as the "Lecaniums" we find this scale plate becomes a portion of the body wall of the insect. It might be compared with the carapace or the top shell of the turtle. The scale insects belong to the Hemiptera, a great group of injurious insects all of which obtain their food by sucking the juices from the plant on which they feed. The group comprises many of our most injurious insects, some of which are exceedingly difficult to control. Some of the most serious forms have been introduced into this country from other countries, largely on nursery stock and it is on nursery stock that scale insects are still distributed to a very large extent. The adult females can not fly and as a result the insects normally reach a new locality only by crawling or by being carried by the wind or on the feet of birds.

It has been claimed by some writers that birds are the principal natural agency for the dissemination of the scale insects, and some writers have been bold enough to assert that if all the birds could be destroyed that all of the scale insects would become extinct within a comparatively short time. The writer who suggested such a possibility of course did not do so with a view of recommending that birds be exterminated on this account. The value which they do in destroying other injurious insects far outweighs what little harm they may do by distributing scale insects. I am satisfied in my own mind that many scale insects reach new food plants by being carried on the wind. The young scales are exceedingly minute and can easily be carried a distance of a number of yards.

The different species of scale insects vary considerably in their breeding habits. Some forms having only one brood a year, others having many broods. Many forms pass the winter in the egg stage, while others, such as the San Jose scale, pass the winter as more or less mature insects and the first brood of young are born alive the following spring. The variation in the breeding habits of the

insects has an important bearing on the control measures to be adopted for any special form and special emphasis will be laid on this point from time to time in the discussion of the different species.

CONTROL OF THE SCALE INSECTS.

Thirty years ago, the problem of the control of the scale insects was a comparatively simple one in America, but at about that time the San Jose scale made its appearance in California and has been spread over the entire country—becoming our most injurious scale insect. Had there been an efficient inspection system in America at that time the San Jose scale would never have obtained a foothold, and had there been anything like a reasonably efficient inspection system in Indiana fifteen years ago the San Jose scale could have been stamped out when it first appeared. Neglect at that time, however, meant that the scale was to spread over the entire State so that we find it in practically every county today.

The problems connected with the control of the San Jose scale do not differ greatly from the problems of the control of any scale insect. All of the scales are sucking insects and obtain their food, as has been stated, by sucking the juices of plants. Consequently, to destroy them we must employ some preparation that will kill them by contact, as it is obvious that a poison like Paris green or arsenate of lead which acts internally would not be effective in controlling a pest which obtains its food from the interior of plants. Perhaps our most prominent insecticide at this time is the lime-sulphur solution which is so widely used throughout the country today. Unquestionably the most satisfactory solution that can be used for the control of any scale insect is what is termed the Standard Lime-Sulphur Solution. This solution is prepared by boiling for at least one hour 50 pounds of lime, 50 pounds of sulphur and 150 gallons of water. This formula can be used in any proportion and will give excellent results in the control of scale insects, provided a good quality of lime is used and also provided that the solution is cooked for the specified time. There is no reason why the solution should not be just as effective applied cold as applied hot, although some writers recommend that the solution go on the trees while it is warm. In my experience, I have never seen that anything was gained for applying the solution while it was still hot. Certainly nothing is lost by allowing the solution to become cold. Very often there will be considerable quantity of the solution left at the end of a day's spraying and

this would be wasted if the former recommendation of applying it to the trees had been followed. The concentrated commercial lime and sulphur solutions that are now put on the market have shown themselves to be fully equal to the home-made preparation. They are not quite as cheap as the home-made solution but the saving in time is sufficient to make up the difference in price. The so-called miscible oils had quite a vogue through the country a few seasons ago, but I believe that they are now largely replaced by



TREES WELL SPRAYED WITH LIME AND SULPHUR.

the commercial lime-sulphur preparation. I am sure that this is the condition in Indiana at least. These oil preparations never gave entirely satisfactory results in the destruction of scale insects and in a number of cases they appeared to be positively injurious to the trees.

It is interesting to know that the present system of nursery inspection that is in force over the United States was brought about largely through the introduction of the San Jose scale. This insect from Northern China was first brought to California and from there to a certain section in the East where it was widely disseminated by a nursery firm in New Jersey. I should not wonder if the San Jose scale had not almost paid for the damage it has wrought simply by creating an interest in the possibility of introducing injurious insects from abroad. An especially careful watch is now kept on all shipments of nursery stock entering America from any foreign country because of the great danger of

introducing still more injurious forms. Under the horticultural laws of the various States it is illegal to sell nursery stock that is infested with San Jose scale or with any other injurious insect. This has necessitated the development of some system of treatment of infested nursery stock so as to render it safe for planting and, at the same time, so as not to reduce the vitality of the tree. The fumigation with hydrocyanic acid gas has been demonstrated to be fully effective for this purpose and is widely employed throughout the country today. Some States require that all nursery stock sold shall be fumigated according to the recommendation of the entomological department of that State. These recommendations are practically uniform for the entire country and require that the trees be exposed to the vapor of hydrocyanic acid gas for a period of forty-five minutes. This gas is prepared by adding potassium cyanide to dilute sulphuric acid. For each one hundred cubic feet of space in the fumigating house the following formula is used.

Water, 4 oz.

Sulphuric acid, 2 oz.

Cyanide, 1 oz.

The cyanide must be pure and fresh if good results are to be obtained. The water and acid are mixed and placed in a crock or jar that will not be affected by the acid. The cyanide is placed in a paper bag and dropped into the jar the last thing before closing the door of the fumigating house. Lose no time in getting out of the house and closing the door as the fumes which are generated immediately are intensely poisonous.

THE FUMIGATING HOUSE.

The house in which the trees are exposed to the gas must be made so that it is absolutely air-tight. This can be accomplished by making the walls double and placing two layers of heavy building paper between. Do not attempt to make an old shack fit for fumigating purposes by covering it or lining it with paper. Use great care to see that the roof is tight. This is one of the most serious drawbacks to successful fumigation. The gas is very light and if there is a slight leak in the roof all of the gas will escape before the scales have been killed. Many growers have built houses of cement. These are by far the best, as they are tight, and during the winter they may be used to store tender plants. They are also fairly cheap to build when you consider that they never

need repairs. The house should be made with a door than can be easily opened but that fits tight. A rope fifteen feet long should be tied to the handle of the door with which to pull it open at the end of the fumigation period. A window should be provided in the back of the house and near the top. This window must be opened from the outside the same way the door is. This is to allow the escape of any gas that might collect in the top of the house above the level of the top of the door. The light gas may form a pocket in the top of the house and remain there for hours after the door is opened. Do not enter the house for an hour after it is opened. It is a good plan to dig and store the stuff in the house during the day and at night fumigate as above for forty minutes. Then open the house and let it stand till the next morning when the stock can be removed in safety.

Some nurserymen have attempted to economize by building their houses with a partition door that can be used to reduce the size of the fumigating compartment and thus use less material. These doors can not be made tight and as a result the work that is done in them can not be effective.

Greenhouses are fumigated with a much weaker charge of the gas producing chemicals.

Find the cubic content of the greenhouse to be fumigated and multiply the number of cubic feet by 0.15: the resulting figure will be the number of grams of cyanide to use for the house. (One gram equals about 15 grains.) For each part of cyanide use two parts of sulphuric acid and four parts of water. The method of measuring triangular shaped houses was fully explained in my first annual report.

LIST OF SCALE INSECTS.

98. *Orthesia insignis* (Dougl.).

THE GREENHOUSE ORTHESIA.

Unlike most of the scale insects, this insect is not fixed but has the power of locomotion and can crawl from place to place like the common mealy bugs. It is common in many greenhouses, where it attacks principally the coleus. Owing to the temperature conditions in greenhouses this pest is enabled to breed throughout the year, but the exact number of generations has not been worked out to my knowledge.

The insects can be controlled by spraying with a whale oil soap solution, but the most effective results are to be obtained by the use of hydrocyanic acid gas in the greenhouse. Full directions for the use of this method are to be found following this list of species.

933. *Kermes andrei* (King.).

This round scale was found by Mr. Morrison on white oak near Noblesville. It is of no economic importance. The cut will enable it to be readily recognized.

42. *Kermes galliformis* (Riley.).

This kermes was found in Brown and Marion County by Mr. Morrison. It is fairly common on oaks. The following description is by Professor King: "A large, dark gray form, which turns to a nearly white color when exposed a season on the twigs.

* * * viewed with a hand lens the scale is seen to be covered with minute black specks. Newly hatched larvae dirty gray."

54. *Kermes petiti* (Erhr.).

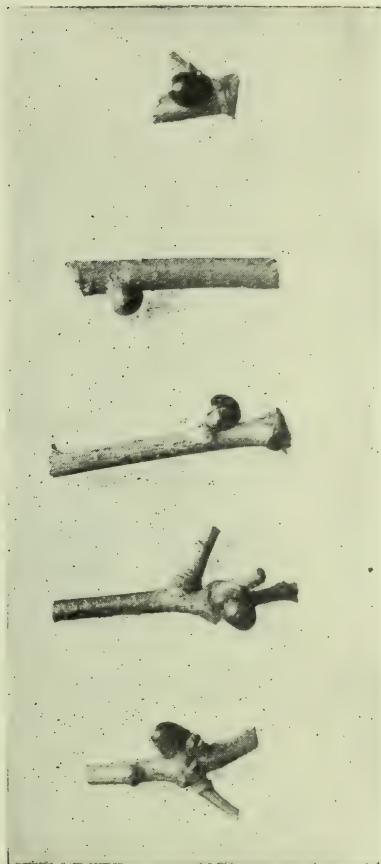
This scale is recognized by the fact that it is broader than it is long. It varies in color from light to dark brown more or less mottled.



GREENHOUSE ORTHESIA. (Much enlarged).



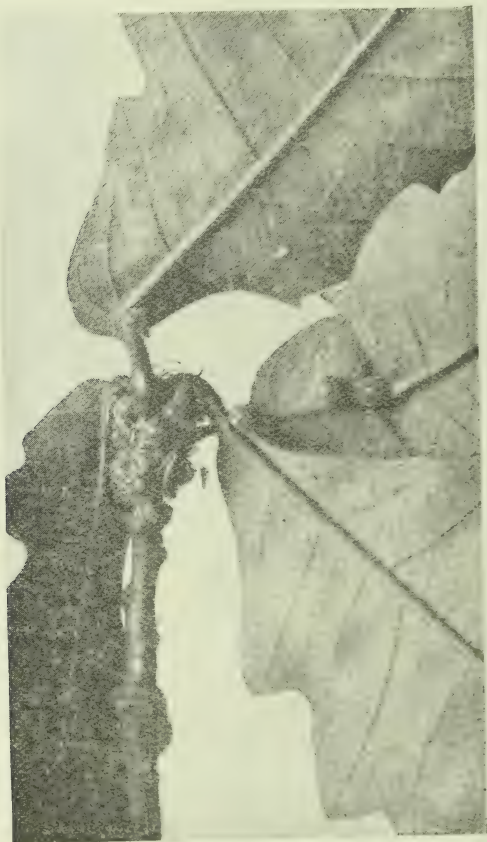
KERMES ANDREI AND EULECANIUM
COCKERELLI.



KERMES ANDREI

255. *Kermes pubescens* (Bogue.).

This interesting scale was found by Mr. Morrison on oaks in Indianapolis and in woods near the city. The individual scales are quite large and covered with a distinct down or pubescence. This character is shown in the cuts.



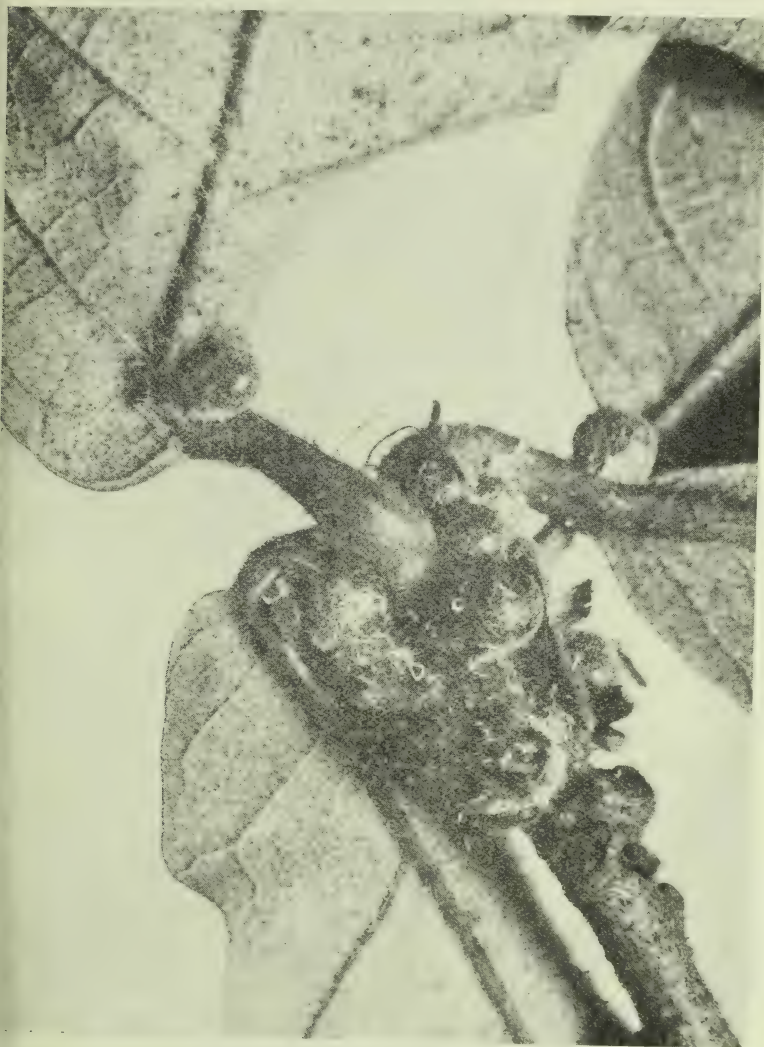
KERMES PUBESCENS.

391. *Phenacoccus acericola* (King.).

WOOLLY MAPLE LEAF SCALE.

The under sides of maple leaves are sometimes almost covered with a waxy white powder. The powder is bunched in masses of varying size up to one-fourth inch in length and these masses contain living or dead female scales. The male scale is winged (i

the adult) and is red in color. The insect passes the winter in a half grown condition, hibernating in cracks in the bark of the tree. At this period the pest is easily destroyed by the use of the



KERMES PUBESCENS (Enlarged).

ne and sulphur solution. The spray should be directed especial-
to the forks of branches and to the base of the larger limbs as
larvae are most abundant at these places.



WOOLLY MAPLE LEAF SCALE.

454. *Pseudococcus citri* (Risso).

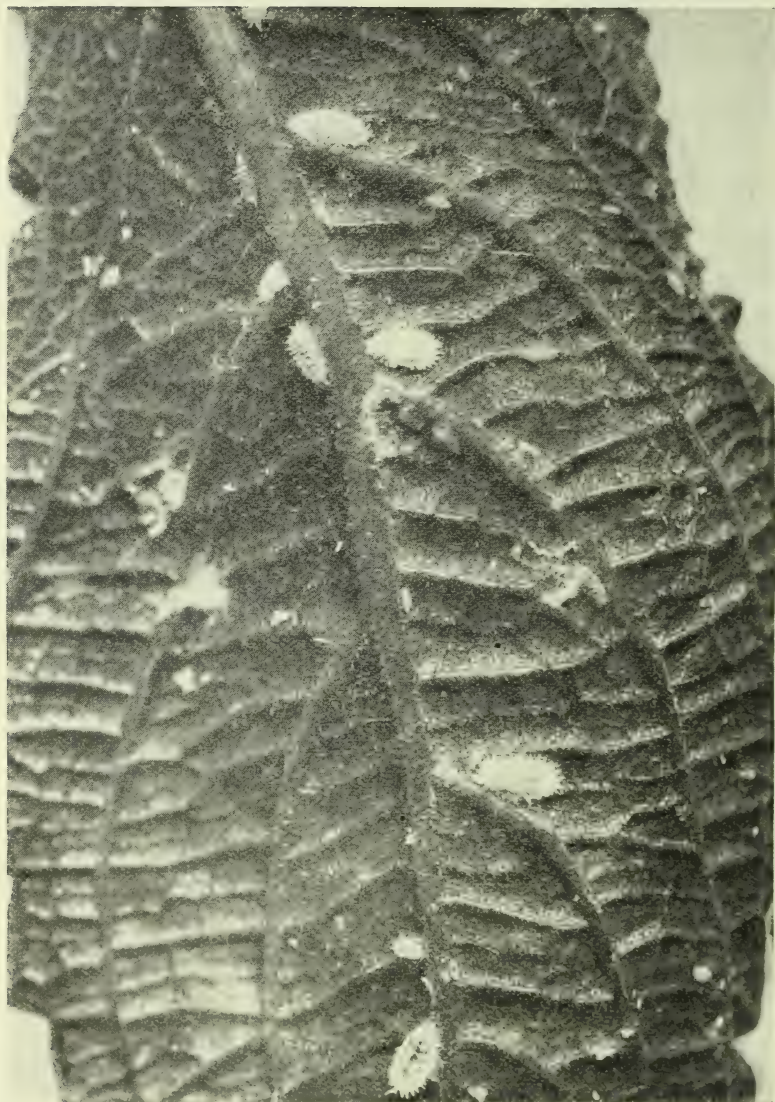
MEALY BUG.

Like the orthesia the mealy bugs are able to move about on their food plant or to migrate from one plant to another.



COMMON MEALY BUG.

They are common on greenhouse plants and very often breed on plants growing out of doors in summer. Like the orthesia this species prefers the coleus to any other plant.



COMMON MEALY BUG. (Enlarged).

It is probable that the pest lives over winter in greenhouses and escapes to the open each spring.

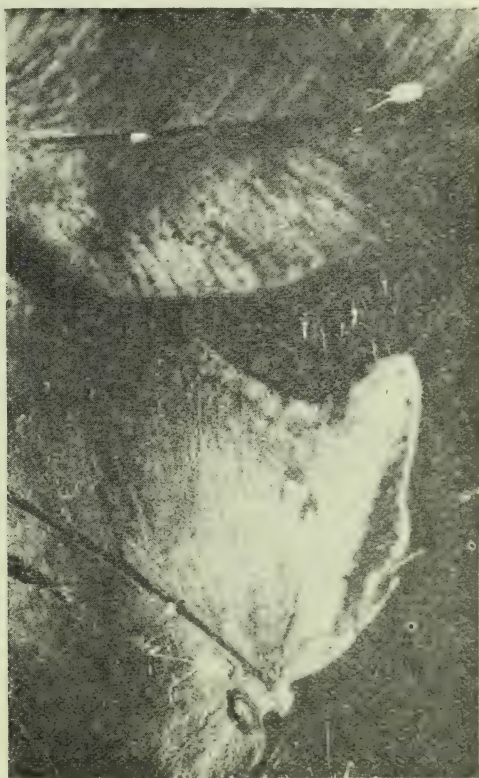
The adults are well described by their name, but for more certain identification the reader is referred to the accompanying cuts.

Fumigation or the use of whale oil soap are advised as treatment.

490. *Pseudococcus longispinus* (Targ.).

LONG SPINED MEALY BUG.

This pest is closely related to the preceeding but differs from it in having two prominent caudal spines longer than the body.



PSEUDOCOCCUS LONGISPINUS.

The species is figured herewith. This insect is not common in Indiana but is sometimes found when inspecting greenhouses in connection with our import inspection work. It is controlled by the same treatment advised for the above.

506. *Pseudococcus pseudonipae* (Cock).

This uncommon *Pseudococcus* has been found in several green-houses during the course of the inspection of foreign nursery stock. It is well illustrated in the accompanying cut.



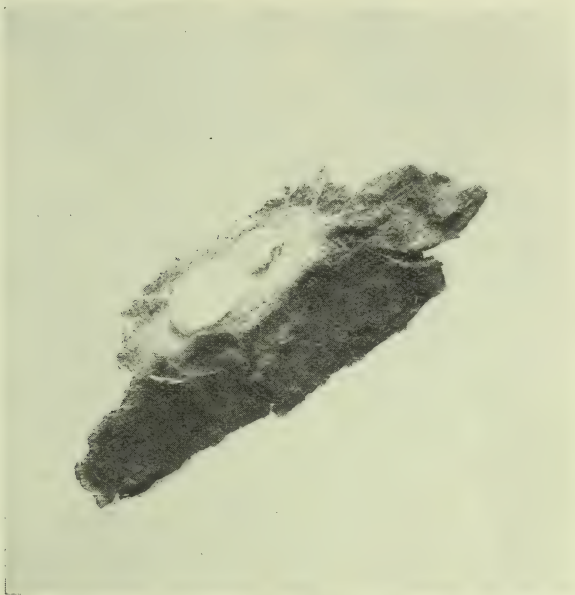
PSEUDOCOCCUS PSEUDONIPAE.

638. *Pulvinaria acericola* (Walsh & Riley).

COTTONY LEAF SCALE OF THE MAPLE.

This insect is a close relative of the cottony maple scale, which it resembles to a very great extent. It has been found in several localities in the State but never to such an extent as to cause any

very many of these third brood caterpillars survive the winter. Normally, the insect passes the winter in the egg stage; the larvae appearing in the early spring. The adult moths mature some time in July, and the female moth usually lays the eggs directly on or very near the cocoon from which she has just emerged. These cocoons are very often built in sheltered places afforded by the overlapping weather-boards on houses and in large cracks in the bark of trees. This fact is an important



FEMALE OF THE TUSSOCK MOTH LAYING EGGS.

point in the control of the pest. If the eggs are not laid directly on the trees and since the female is wingless, it follows that any of the caterpillars that reach the leaf surfaces must do so by crawling up the trunk of the tree. Consequently, the damage from this pest can be completely prevented by banding the trees with some sticky material as has been recommended in the case of the Bag-Worm Moth. In case the larvæ should reach the leaves before their presence is detected they can be destroyed by spraying the trees with a solution of arsenate of lead in the proportion of 3 pounds to 50 gallons of water.

This is one of the native insects that is commonly controlled by parasites so that, as a rule, we do not have two years of severe Tussock Moth injury in succession.



EGG MASS OF TUSSOCK MOTH.

The Elm Leaf Beetle (*Galerucella luteola* Mull). "This imported insect is, in all probability, responsible for more ruined elm trees in the Hudson River Valley than all other destructive agencies."—(E. P. Felt.)

This European insect has been injurious through the eastern States for the last 75 years, and has wrought a great deal of destruction to the elm trees of that section. During recent years, the insect has migrated to the Ohio River Valley and about six years ago made its first appearance in southern Indiana. I have seen elm trees completely stripped of their foliage in Harrison



ADULTS OF ELM LEAF BEETLES.

County, and the pest has become an exceedingly injurious insect throughout the southern counties. In the town of Corydon, the beautiful elm trees have been stripped of their foliage, and the famous Constitutional Elm, under which the Constitution of Indiana was written, has been somewhat injured by the work of this pest. The district of Kentucky, immediately across the river from Harrison County, is badly infested with the insect, as is most of the State of Kentucky. There is no reason to suppose that the insect will not spread northward through the State of Indiana, making, in this way, another argument in favor of discarding the elm tree as a tree to plant along our city streets. With the increasing number of pests which this tree has to face it is only a short time until the elm trees of our cities will be an expensive luxury.

LIFE HISTORY.

The adult beetles pass the winter in sheltered cracks and in trash and rubbish on the ground around the tree. When the young leaves unfold, the beetles begin to eat small round holes through

them. Many leaves are thus destroyed before the main brood of the insect appears. A little later in the spring the females lay small clusters of yellow, bottle-shaped eggs on the under side of the leaves. The egg laying period extends over about a month,



WORK OF ELM LEAF BEETLE. (Adult.)

each female laying several hundred eggs. In a little less than ten days these eggs hatch and the young larvae feed upon the under surface of the leaf, leaving the veins and the upper surface of the leaf intact. Thus differing distinctly in their injury from that

caused by the adult beetle, which eats the entire tissue of the leaf from surface to surface. The larvae require about three weeks in order to complete their full growth and at that time they crawl



WORK OF ELM LEAF BEETLE. (Larva.)

down the trunks of the trees and transform to the pupa condition, either on the surface of the ground or in some shelter which they find near the tree. They are sometimes found in enormous numbers protected by the pasteboard advertising signs tacked on

trees along the roadside. In about ten days the adult beetles appear and lay eggs for the second brood. This second brood is sometimes of more serious consequence than the first brood



WORK OF ELM-LEAF BEETLE. (Larva.)

inasmuch as it causes a defoliation of the trees a second time, without giving them an opportunity to recuperate from the shock of the first defoliation.

The foregoing description is probably sufficient to enable anyone to recognize the pest should it appear in their vicinity, but

owing to the fact that this insect is entirely new to a large portion of Indiana, I will give the following complete description of the various stages.

The adult beetle is a dull yellow color and each wing cover has a distinct black stripe extending from the base of the wing to the extremity just along the outside edge. The legs and antennæ of the beetle are yellow. In size, the beetle is about one-fourth of an inch in length. The eggs are bright yellow in color and at first glance resemble the eggs of the Colorado Potato Bug, although a trifle smaller in size. They are packed in a group on the under side of the leaf in clusters from ten to thirty. The very young larva is dark and covered with small tubercles bearing black hairs, giving it the general color effect of being black. The larva increases in size rapidly and molts a number of times before becoming full grown. When it reaches its full length of about one-half inch, it is dull yellow in color and with two longitudinal black stripes along the back. The pupa is about one-fourth of an inch in length and bright orange yellow in color with small black hairs or spines. Under badly infested trees the pupa can be found in immense numbers in their season and it is a good plan to gather them at this time and destroy them. This can be done either with the use of gasoline or with boiling water.

Dr. W. E. Britton reports the fact that one of the most important natural enemies of the Elm Leaf Beetle in Connecticut is the fungus which is known to botanists as *Sporotrichium globuliferum*. This fungus attacks the pupa and adult in the late summer, especially in moist seasons. During the past season we found this fungus prevalent to considerable extent on the insects which appeared in Harrison County, contrary to Dr. Britton's statement. This insect was unusually noticeable the past season, which was a very dry one in southern Indiana. The insects which are attacked by this fungus appear covered with a white mold. While this fungus will no doubt materially assist in keeping the pest under control, it must not be depended upon for too much. Wherever the insects appear the trees will have to be sprayed with a solution of arsenate of lead at the rate of 3 pounds to 50 gallons of water. By spraying the trees early in the spring as soon as the adult beetles appear, the later injury from the larvae can be prevented to considerable extent. In some sections of the east they prefer to wait until the young larvae are hatching and then spray the trees thoroughly at that time. It is claimed by some that with this practice a single spraying is sufficient to con-

trol the pest, whereas in the early spraying for the destruction of the adult beetle it is sometimes necessary to repeat the spray several times, owing to the fact that it is liable to be washed off by the spring rains. The later application applied for the destruction of the larvæ is put on after the spring rains have stopped, and the poison usually remains on the leaves throughout the summer.

Spiny Elm Caterpillar (*Vanessa antiopa*). This caterpillar is the larval stage of an exceedingly beautiful and interesting butterfly known as the Camberwell Beauty. The adult butterfly passes the winter sheltered in some hollow tree or other protected place



ADULT OF SPINY ELM CATERPILLAR.

(Camberwell Beauty Butterfly.)

and appears with the first warm days of spring, for it is our earliest butterfly. The eggs are laid in masses on the twigs of elm and sometimes on other trees. The young larvæ feed on the opening buds and young leaves of the trees, very often doing extensive injury by defoliating large branches or even whole trees. The insects rarely appear in injurious numbers two years in succession, owing to the fact that they are kept under control by various parasites. Wherever they do appear in large numbers, they can be destroyed by spraying the trees with arsenate of lead as recommended for the Elm Leaf Beetle.



SPINY ELM CATERPILLARS ON LEAF.



GRAPTA SP. IN WINTER.



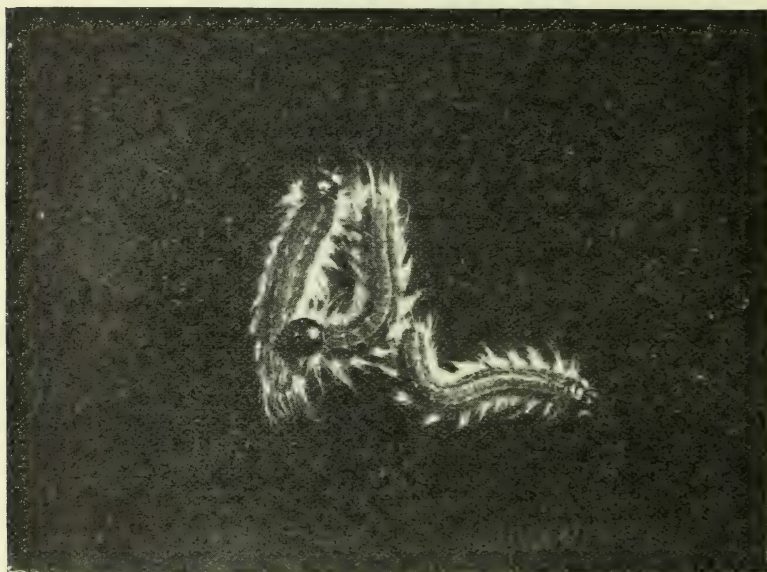
SEMICOLON BUTTERFLY.



A NEST, OF WALNUT WORMS.

Grapta Interrogationis Fab. This butterfly has a similar life history to the Camberwell Beauty and its injury is almost identical with that species. It also confines its depredations almost exclusively to the elm.

The Walnut Worm (*Datana integerrima*). The Walnut Worm is the larva of a pretty brown moth which is frequently captured by collectors in native woods. The larva confines its feeding almost exclusively to the walnut and hickory trees, where it feeds

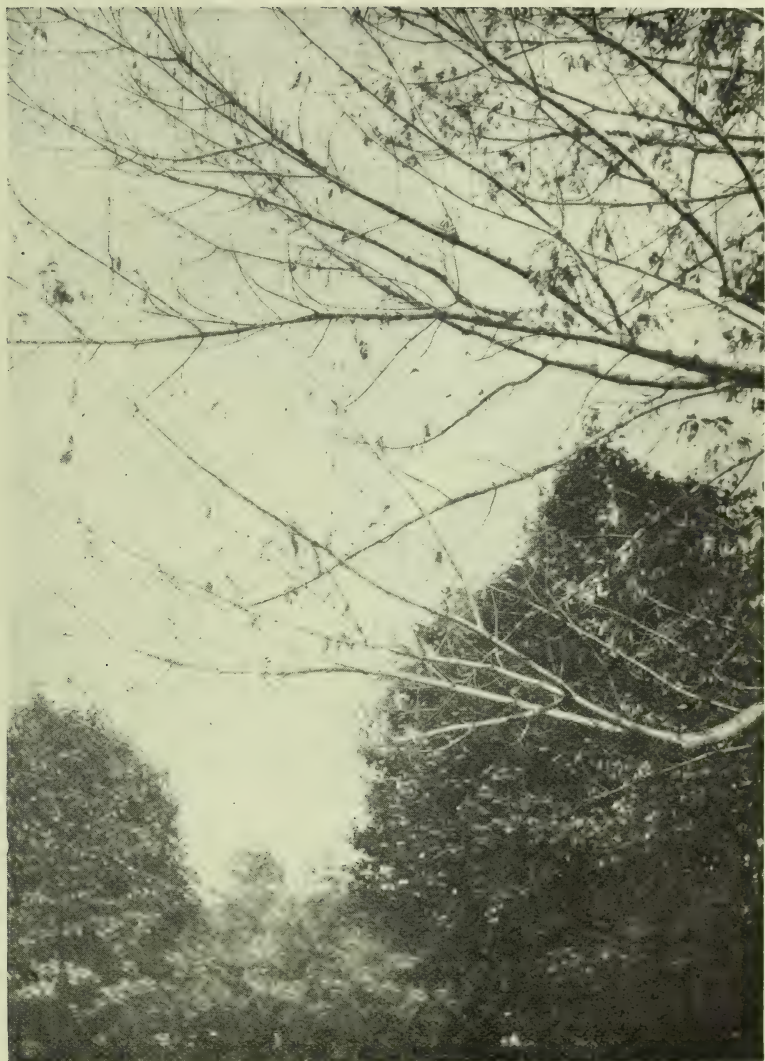


LARVA OF WALNUT WORM.

in compact colonies. The worms are quite dark in color and have conspicuous long, white hair. It has the interesting habit of crawling down the trunk of a tree and gathering in a cluster at moulting time. If the trees are carefully watched, these clusters can readily be gathered and the larvæ destroyed mechanically. The larva is well illustrated in the accompanying cut.

The June Beetle (*Lachnosterna* sp.). The June Beetle or "June Bug" is a common insect late in spring or early summer.

The larva live in the sod, feeding on the roots of grass and other plants and are the common "white grubs." Serious damage is often done to pasture lands. Deep fall ploughing and the use of kainit at the rate of half a ton per acre will drive out most of the insects.



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The adults are night flyers and often injure the foliage of trees and shrubs. During the last season some of the white ash trees in Crown Hill Cemetery were completely defoliated by this beetle. Since their work is done at night it is sometimes puzzling to the observer, who is unable to find an insect at work during the day. As a rule, the damage is done early in the evening between dusk and 10:00 o'clock. Arsenic in any form is, of course, effective.

The complete life history of the several species is not clearly recorded either as to the length of the larval period or as to the time of emergence of the adult. The latter seems to vary considerably and I have found recently transformed specimens from May till mid-autumn.



SEVENTEEN YEAR LOCUSTS.

The Seventeen Year Locust (*Tibicen septendecim*). The Seventeen Year Locust, or Periodical Cicada as it is more properly called, occasionally injures shade trees by laying eggs in the smaller twigs. The injury is but slight, however, and the fact that it occurs only once in seventeen years makes the insect a form which needs receive but little attention from the tree growers.

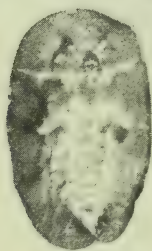
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It has been claimed by some writers that birds are the principal natural agency for the dissemination of the scale insects, and some writers have been bold enough to assert that if all the birds could be destroyed that all of the scale insects would become extinct within a comparatively short time. The writer who suggested such a possibility of course did not do so with a view of recommending that birds be exterminated on this account. The value which they do in destroying other injurious insects far outweighs what little harm they may do by distributing scale insects. I am satisfied in my own mind that many scale insects reach new food plants by being carried on the wind. The young scales are exceedingly minute and can easily be carried a distance of a number of yards.

The different species of scale insects vary considerably in their breeding habits. Some forms having only one brood a year, others having many broods. Many forms pass the winter in the egg stage, while others, such as the San Jose scale, pass the winter as more or less mature insects and the first brood of young are born alive the following spring. The variation in the breeding habits of the

insects has an important bearing on the control measures to be adopted for any special form and special emphasis will be laid on this point from time to time in the discussion of the different species.

CONTROL OF THE SCALE INSECTS.

Thirty years ago, the problem of the control of the scale insects was a comparatively simple one in America, but at about that time the San Jose scale made its appearance in California and has been spread over the entire country—becoming our most injurious scale insect. Had there been an efficient inspection system in America at that time the San Jose scale would never have obtained a foothold, and had there been anything like a reasonably efficient inspection system in Indiana fifteen years ago the San Jose scale could have been stamped out when it first appeared. Neglect at that time, however, meant that the scale was to spread over the entire State so that we find it in practically every county today.

The problems connected with the control of the San Jose scale do not differ greatly from the problems of the control of any scale insect. All of the scales are sucking insects and obtain their food, as has been stated, by sucking the juices of plants. Consequently, to destroy them we must employ some preparation that will kill them by contact, as it is obvious that a poison like Paris green or arsenate of lead which acts internally would not be effective in controlling a pest which obtains its food from the interior of plants. Perhaps our most prominent insecticide at this time is the lime-sulphur solution which is so widely used throughout the country today. Unquestionably the most satisfactory solution that can be used for the control of any scale insect is what is termed the Standard Lime-Sulphur Solution. This solution is prepared by boiling for at least one hour 50 pounds of lime, 50 pounds of sulphur and 150 gallons of water. This formula can be used in any proportion and will give excellent results in the control of scale insects, provided a good quality of lime is used and also provided that the solution is cooked for the specified time. There is no reason why the solution should not be just as effective applied cold as applied hot, although some writers recommend that the solution go on the trees while it is warm. In my experience, I have never seen that anything was gained for applying the solution while it was still hot. Certainly nothing is lost by allowing the solution to become cold. Very often there will be considerable quantity of the solution left at the end of a day's spraying and

this would be wasted if the former recommendation of applying it to the trees hot was followed. The concentrated commercial lime and sulphur solutions that are now put on the market have shown themselves to be fully equal to the home-made preparation. They are not quite as cheap as the home-made solution but the saving in time is sufficient to make up the difference in price. The so-called miscible oils had quite a vogue through the country a few seasons ago, but I believe that they are now largely replaced by



TREES WELL SPRAYED WITH LIME AND SULPHUR.

the commercial lime-sulphur preparation. I am sure that this is the condition in Indiana at least. These oil preparations never gave entirely satisfactory results in the destruction of scale insects and in a number of cases they appeared to be positively injurious to the trees.

It is interesting to know that the present system of nursery inspection that is in force over the United States was brought about largely through the introduction of the San Jose scale. This insect from Northern China was first brought to California and from there to a certain section in the East where it was widely disseminated by a nursery firm in New Jersey. I should not wonder if the San Jose scale had not almost paid for the damage it has wrought simply by creating an interest in the possibility of introducing injurious insects from abroad. An especially careful watch is now kept on all shipments of nursery stock entering America from any foreign country because of the great danger of

introducing still more injurious forms. Under the horticultural laws of the various States it is illegal to sell nursery stock that is infested with San Jose scale or with any other injurious insect. This has necessitated the development of some system of treatment of infested nursery stock so as to render it safe for planting and, at the same time, so as not to reduce the vitality of the tree. The fumigation with hydrocyanic acid gas has been demonstrated to be fully effective for this purpose and is widely employed throughout the country today. Some States require that all nursery stock sold shall be fumigated according to the recommendation of the entomological department of that State. These recommendations are practically uniform for the entire country and require that the trees be exposed to the vapor of hydrocyanic acid gas for a period of forty-five minutes. This gas is prepared by adding potassium cyanide to dilute sulphuric acid. For each one hundred cubic feet of space in the fumigating house the following formula is used.

Water, 4 oz.

Sulphuric acid, 2 oz.

Cyanide, 1 oz.

The cyanide must be pure and fresh if good results are to be obtained. The water and acid are mixed and placed in a crock or jar that will not be affected by the acid. The cyanide is placed in a paper bag and dropped into the jar the last thing before closing the door of the fumigating house. Lose no time in getting out of the house and closing the door as the fumes which are generated immediately are intensely poisonous.

THE FUMIGATING HOUSE.

The house in which the trees are exposed to the gas must be made so that it is absolutely air-tight. This can be accomplished by making the walls double and placing two layers of heavy building paper between. Do not attempt to make an old shack fit for fumigating purposes by covering it or lining it with paper. Use great care to see that the roof is tight. This is one of the most serious drawbacks to successful fumigation. The gas is very light and if there is a slight leak in the roof all of the gas will escape before the scales have been killed. Many growers have built houses of cement. These are by far the best, as they are tight, and during the winter they may be used to store tender plants. They are also fairly cheap to build when you consider that they never

need repairs. The house should be made with a door than can be easily opened but that fits tight. A rope fifteen feet long should be tied to the handle of the door with which to pull it open at the end of the fumigation period. A window should be provided in the back of the house and near the top. This window must be opened from the outside the same way the door is. This is to allow the escape of any gas that might collect in the top of the house above the level of the top of the door. The light gas may form a pocket in the top of the house and remain there for hours after the door is opened. Do not enter the house for an hour after it is opened. It is a good plan to dig and store the stuff in the house during the day and at night fumigate as above for forty minutes. Then open the house and let it stand till the next morning when the stock can be removed in safety.

Some nurserymen have attempted to economize by building their houses with a partition door that can be used to reduce the size of the fumigating compartment and thus use less material. These doors can not be made tight and as a result the work that is done in them can not be effective.

Greenhouses are fumigated with a much weaker charge of the gas producing chemicals.

Find the cubic content of the greenhouse to be fumigated and multiply the number of cubic feet by 0.15; the resulting figure will be the number of grams of cyanide to use for the house. (One gram equals about 15 grains.) For each part of cyanide use two parts of sulphuric acid and four parts of water. The method of measuring triangular shaped houses was fully explained in my first annual report.

LIST OF SCALE INSECTS.

98. *Orthesia insignis* (Dougl.).

THE GREENHOUSE ORTHESIA.

Unlike most of the scale insects, this insect is not fixed but has the power of locomotion and can crawl from place to place like the common mealy bugs. It is common in many greenhouses, where it attacks principally the coleus. Owing to the temperature conditions in greenhouses this pest is enabled to breed throughout the year, but the exact number of generations has not been worked out to my knowledge.

The insects can be controlled by spraying with a whale oil soap solution, but the most effective results are to be obtained by the use of hydrocyanic acid gas in the greenhouse. Full directions for the use of this method are to be found following this list of species.

233. *Kermes andrei* (King.).

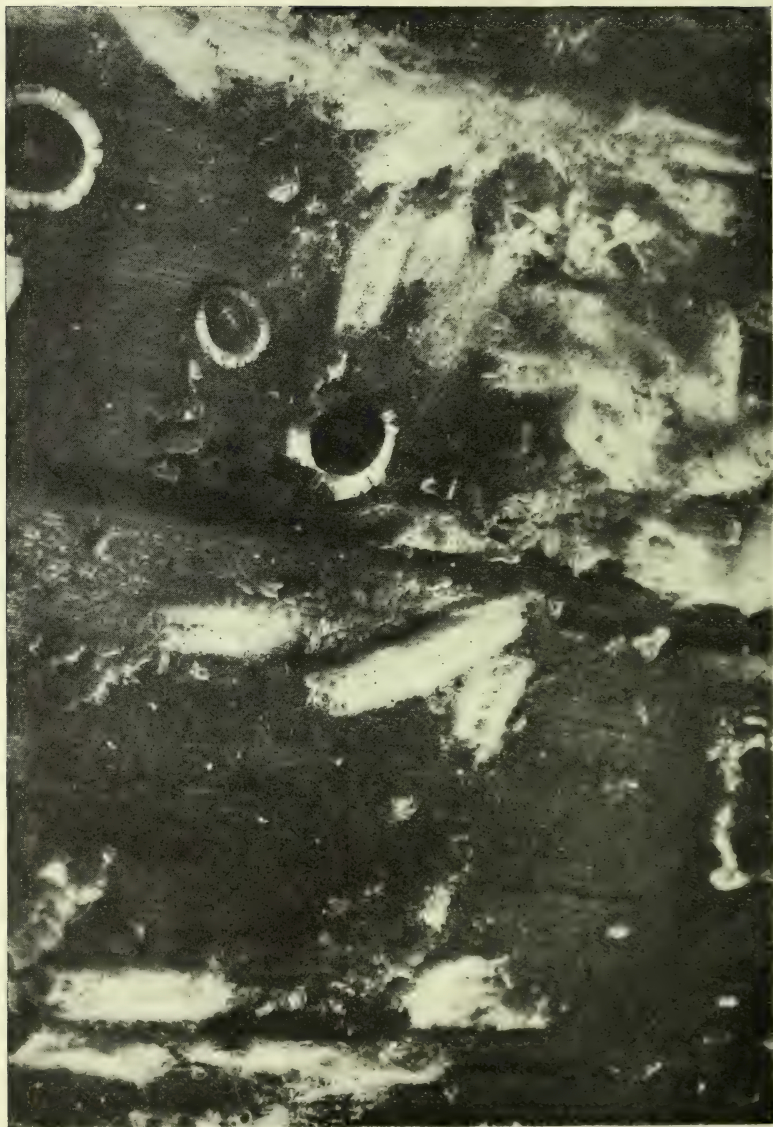
This round scale was found by Mr. Morrison on white oak near Noblesville. It is of no economic importance. The cut will enable it to be readily recognized.

242. *Kermes galliformis* (Riley.).

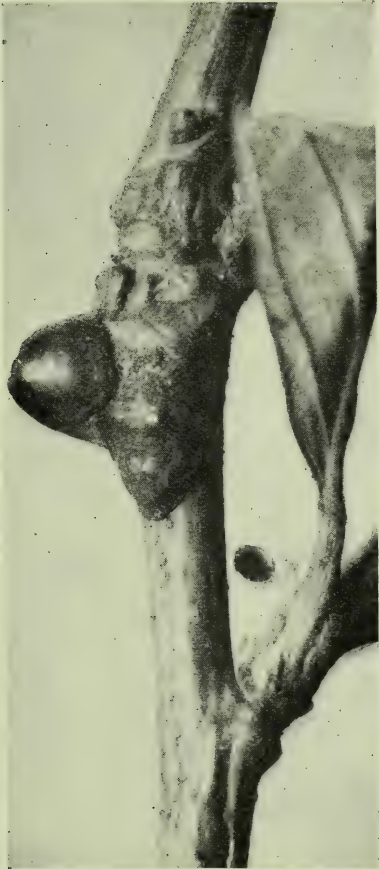
This kermes was found in Brown and Marion County by Mr. Morrison. It is fairly common on oaks. The following description is by Professor King: "A large, dark gray form, which turns to a nearly white color when exposed a season on the twigs. * * * viewed with a hand lens the scale is seen to be covered with minute black specks. Newly hatched larvae dirty gray."

254. *Kermes petiti* (Erhr.).

This scale is recognized by the fact that it is broader than it is long. It varies in color from light to dark brown more or less mottled.



GREENHOUSE ORTHESIA. (Much enlarged).



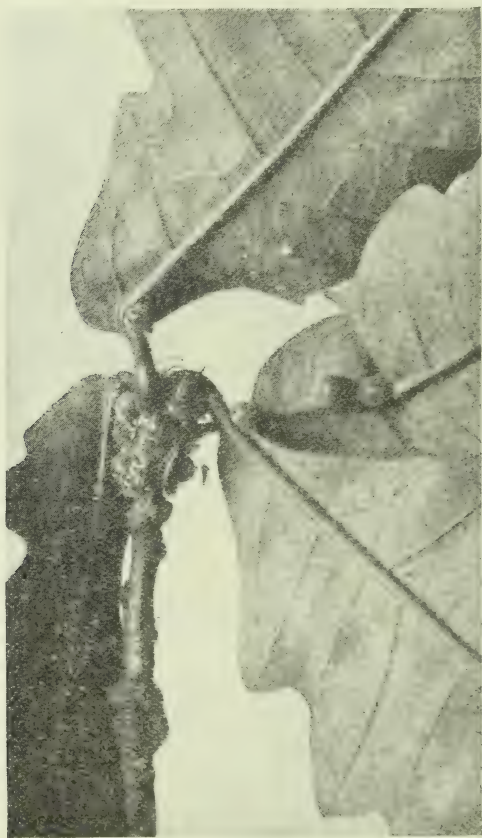
KERMES ANDREI AND EULECANIUM
COCKERELLI.



KERMES ANDREI

255. *Kermes pubescens* (Bogue.).

This interesting scale was found by Mr. Morrison on oaks in Indianapolis and in woods near the city. The individual scales are quite large and covered with a distinct down or pubescence. This character is shown in the cuts.



KERMES PUBESCENS.

391. *Phenacoccus acericola* (King.).

WOOLLY MAPLE LEAF SCALE.

The under sides of maple leaves are sometimes almost covered with a waxy white powder. The powder is bunched in masses of varying size up to one-fourth inch in length and these masses contain living or dead female scales. The male scale is winged (in

the adult) and is red in color. The insect passes the winter in a half grown condition, hibernating in cracks in the bark of the tree. At this period the pest is easily destroyed by the use of the



KERMES PUBESCENS (Enlarged).

lime and sulphur solution. The spray should be directed especially to the forks of branches and to the base of the larger limbs as the larvae are most abundant at these places.



WOOLLY MAPLE LEAF SCALE.

454. *Pseudococcus citri* (Risso).

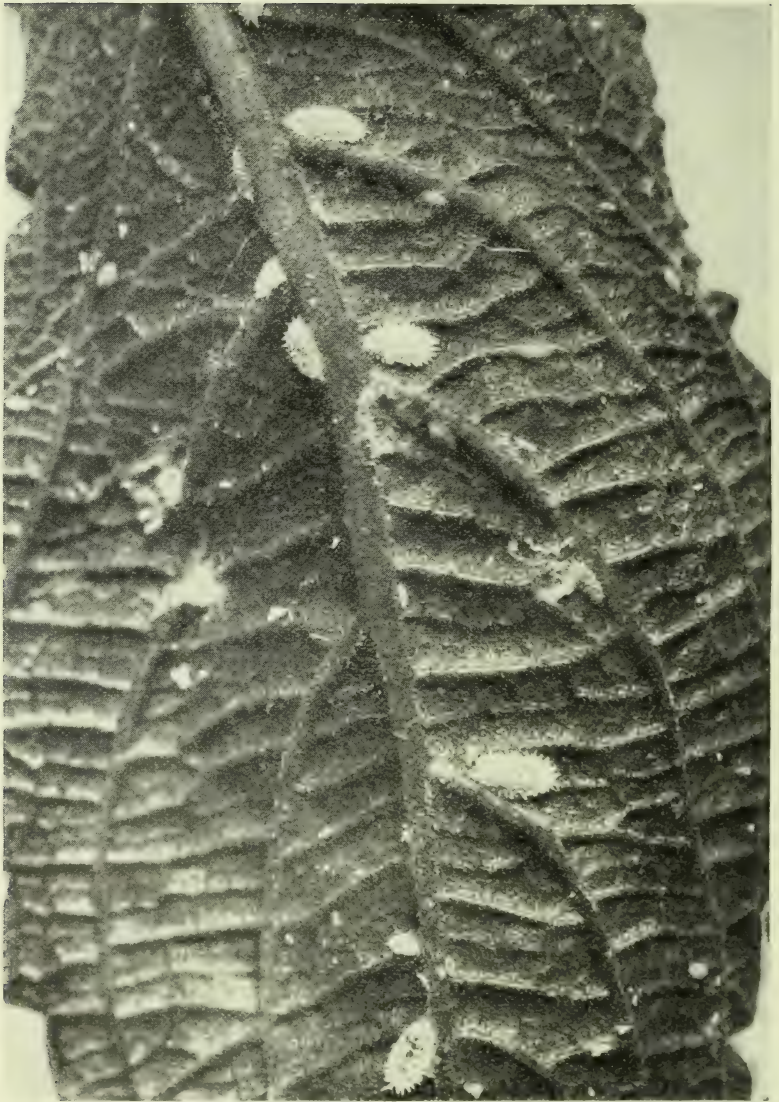
MEALY BUG.

Like the orthesia the mealy bugs are able to move about on their food plant or to migrate from one plant to another.



COMMON MEALY BUG.

They are common on greenhouse plants and very often breed on plants growing out of doors in summer. Like the orthesia this species prefers the coleus to any other plant.



COMMON MEALY BUG. (Enlarged).

It is probable that the pest lives over winter in greenhouses and escapes to the open each spring.

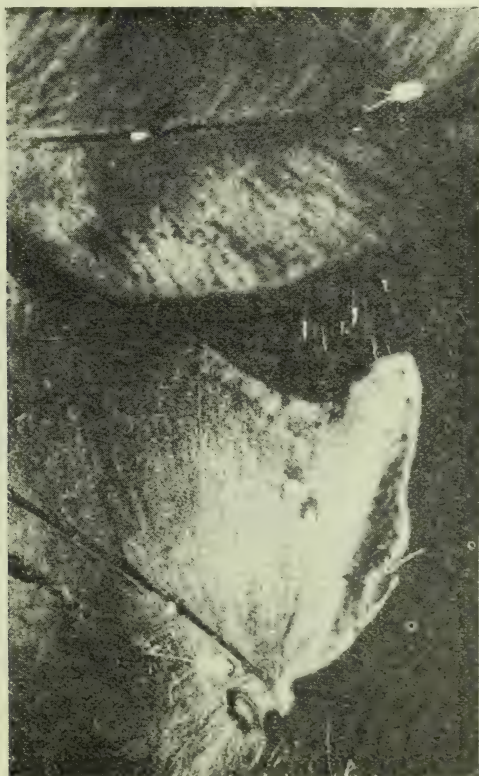
The adults are well described by their name, but for more certain identification the reader is referred to the accompanying cuts.

Fumigation or the use of whale oil soap are advised as treatment.

490. *Pseudococcus longispinus* (Targ.).

LONG SPINED MEALY BUG.

This pest is closely related to the preceeding but differs from it in having two prominent caudal spines longer than the body.



PSEUDOCOCCUS LONGISPINUS.

The species is figured herewith. This insect is not common in Indiana but is sometimes found when inspecting greenhouses in connection with our import inspection work. It is controlled by the same treatment advised for the above.

506. *Pseudococcus pseudonipae* (Cock).

This uncommon *Pseudococcus* has been found in several green-houses during the course of the inspection of foreign nursery stock. It is well illustrated in the accompanying cut.



PSEUDOCOCCUS PSEUDONIPAE.

638. *Pulvinaria acericola* (Walsh & Riley).

COTTONY LEAF SCALE OF THE MAPLE.

This insect is a close relative of the cottony maple scale, which it resembles to a very great extent. It has been found in several localities in the State but never to such an extent as to cause any

apprehension as to its becoming a serious pest. The insects pass the winter attached to the twigs much like the cottony maple scale. Early in spring they migrate to the opening leaves and attach themselves to the under surface. A white cottony mass is formed by the adult female scale and in this mass are to be found the eggs and young. This egg mass is characterized by four prominent ridges running lengthwise of the mass. When the young hatch they feed on the leaf juices and later migrate to the twigs where they are to spend the winter.

It will be seen that the insect makes two migrations in its life history which may account for the fact that it is not usually a serious pest.

668. *Pulvinaria innumerabilis* (Rathvon).

COTTONY MAPLE SCALE.

Next to the San Jose scale this insect has done more damage to Indiana trees than any two scale insects put together. It is of common occurrence over the State but is more common in the north part than in the south. In some cities of northern Indiana this pest has caused great damage to the silver maples and in recent years has attacked the native hard maple, often spreading from the locality of the town into the surrounding timber land. I have found it in the woods far from any town, on not only the various maples but on the linden and elm as well. Ordinarily, however, we think of it as a pest of city streets.

The adult scales pass the winter attached to the under sides of the twigs of trees. Early in the spring these scales develop a conspicuous white egg mass and the young scales soon make their way to the undersides of the new leaves and green twigs where they attach themselves for the rest of their life period. The scales that attach to the leaves perish in the winter when the leaves fall to the ground and those on the young twigs carry the pest over the winter. There is only one brood a year.

The leaves on badly infested trees are often so badly covered that they fall during the middle of the summer, first turning yellow. As a rule the tree does not die for several seasons after it first becomes infested. The first infestation may seem trivial and probably will attract no special attention, but it is at this time that the insect can best be exterminated. If an infested tree is allowed to go untreated it is only a matter of time until it succumbs

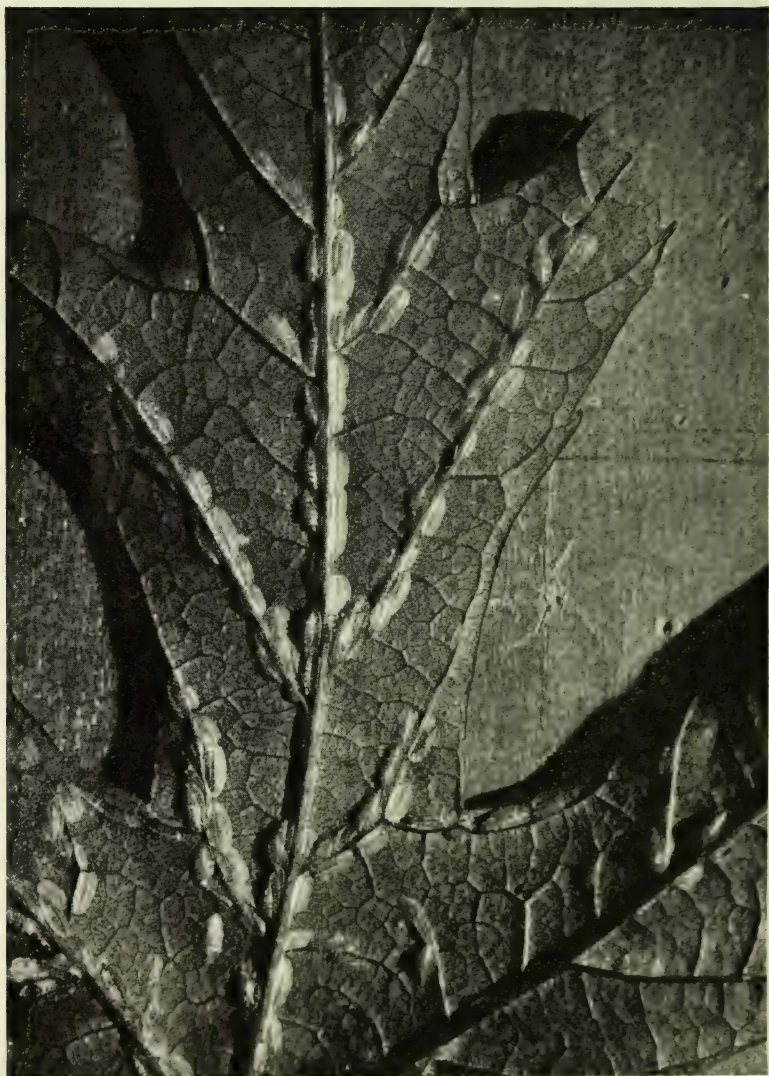


COTTONY MAPLE SCALE.



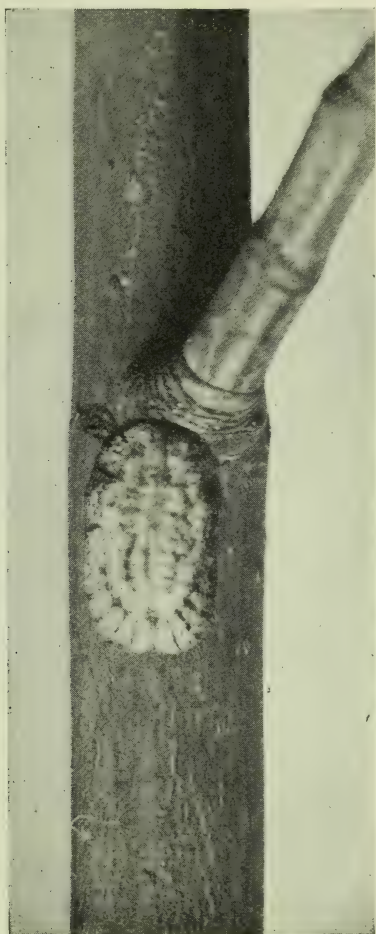
TREE ALMOST KILLED BY COTTONY MAPLE SCALE.

Often the tree will be killed with the exception of a single branch. This branch may remain alive for several seasons after the rest of the tree is dead.



COTTONY MAPLE SCALE ON LEAF IN SUMMER.

to the work of this pest. It is a characteristic of the insect that it attacks trees and kills them branch by branch. Otherwise healthy looking trees often show the work of this scale by dead branches

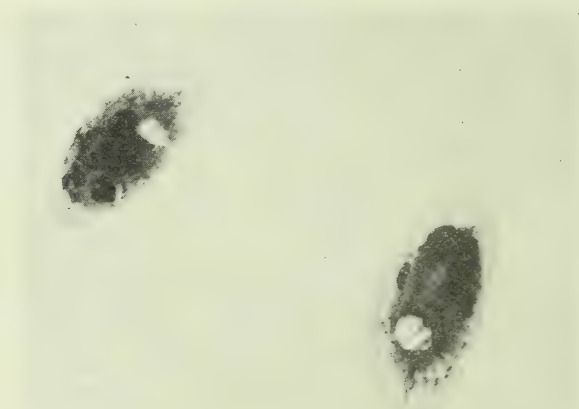


COTTONY MAPLE SCALE IN WINTER. (Enlarged).

in the tops. Sometimes a tree will be killed with the exception of a single branch which for some reason escapes the effects of the insect.

The fact that the scales attach themselves to the under sides of the twigs makes this a comparatively easy scale to control. The individual scales are in a position where they will be easily hit by the spray solution directed from the ground. The proper

solution to employ is the lime-sulphur wash made by boiling 50 pounds of lime and 50 pounds of sulphur in 150 gallons of water at least an hour. This home boiled mixture can be omitted and a commercial solution use. The commercial solution is obtainable in concentrated form and should be diluted with nine volumes of water so that each gallon of the commercial solution makes ten gallons as it goes on the tree. The solution should be applied as soon in the fall as the leaves are off the trees.



COTTONY MAPLE SCALES THAT HAVE BEEN KILLED BY PARASITES

Notice exit holes in shell.

699. *Pulvinaria vitis* (Linn.).

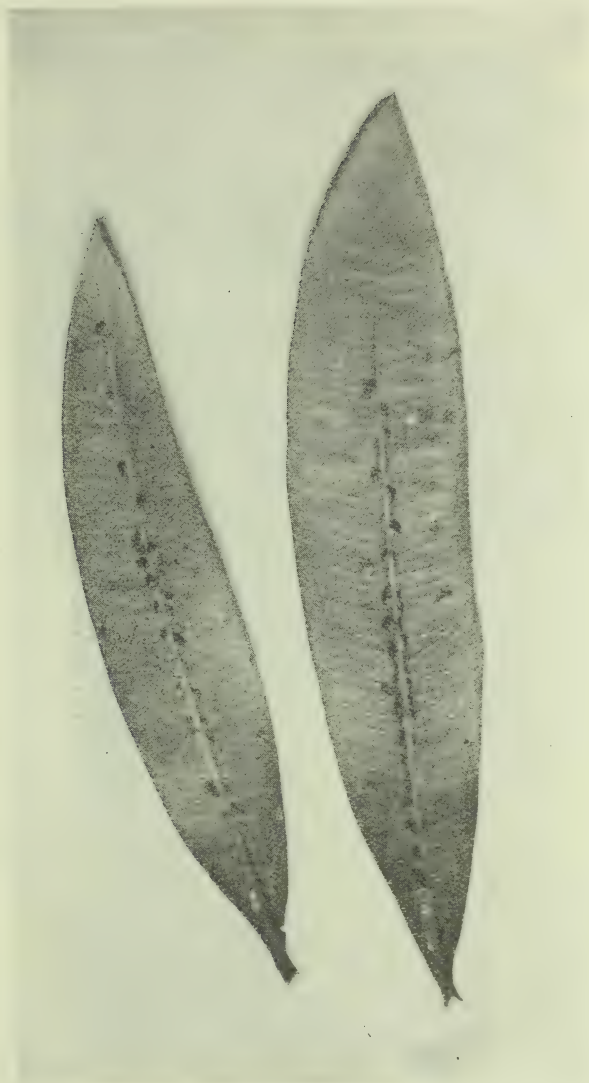
COTTONY GRAPE SCALE.

This member of the genus *Pulvinaria* resembles the cottony maple scale very closely. It has been found in two localities in southern Indiana and in Indianapolis. The life history is similar to the Cottony Maple Scale, but unlike that pest it seldom does any considerable damage. In case it should increase to a serious extent the measure advised against its relative will be found effective for its control.

848. *Coccus hesperidum* Linn.

SOFT SCALE.

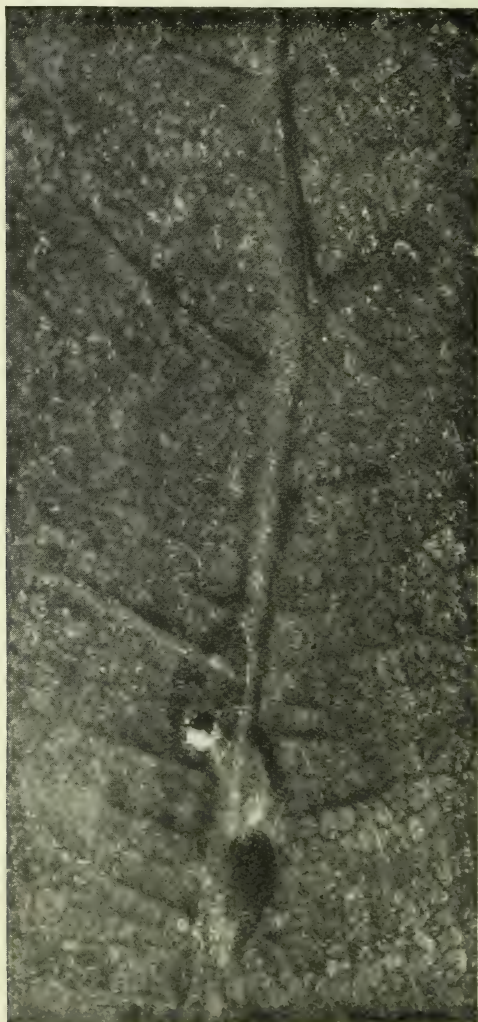
This small brown scale is a common pest of greenhouse plants and is very common on a certain class of tender shrubs like oleander, lemon and so on. The soft-bodied, light brown scales attach themselves to the leaves—usually along the veins. The tender



SOFT SCALE.

twigs are often attacked also. The insect is well shown in the accompanying cuts.

The infested plants may be sprayed with whale oil soap or with a dilute lime and sulphur solution. I have used the commer-



YOUNG OF THE SOFT SCALE.

cial solution diluted one to twenty with very good success and with no injury to the foliage of lemon. I am not able to say what effect this solution would have on other greenhouse plants as I have never tried it. The scales are also readily killed by the hydrocyanic acid gas fumigation.

913. *Eulecanium aurantiacum* (Hunter).

OSAGE LECANIUM.

This unimportant scale was found on an old osage hedge near Lawrence, Indiana. The mature scales are about an eighth of an inch in diameter and of a dark brown color. All that I found were parasitized and I have no reports from other localities.



EULECANIUM CARYAE

918. *Eulecanium caryae* (Fitch).

HICKORY LECANIUM.

This common lecanium is to be found on twigs of hickory, walnut, elm and other native forest trees. Individual specimens are almost hemispherical in shape and of a dark brown color. Like most of its allies it is controlled by parasites and seldom does any considerable damage.



EULECANIUM CARYAE.

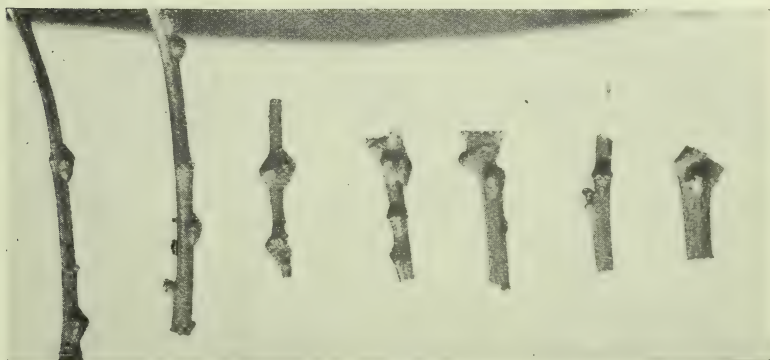
924. *Eulecanium cockerelli* Hunter.

COCKERELL'S LECANIUM.

While this species has been technically described it is now considered to be simply a distorted form of *E. caryae*. The



SMALL BLACK BEETLE EATING EULECANIUM CARYAE. (Enlarged.)



EULECANIUM COCKERELLI.

“species” is characterized by two prominent humps as shown in the cut. All specimens of this sort are found to be parasitized, which accounts for the distorted form referred to.

925. *Eulecanium corni* (Bouche.).

This small light brown lecanium is becoming common in the central part of the State. I have found it in and around In-



EULECANIUM CORNI.

dianapolis and in some cases it is doing considerable damage. In the city nurseries at Riverside Park this form was found on the sweet gum in numbers sufficient to cause serious results. The in-

festation was taken in hand promptly by the superintendent of the nursery and by cutting and spraying the species has been practically exterminated.

At another place in Riverside Park I found the species on hackberry to such an extent that branches had been killed. Like



EULECANIUM CORNI.

most other lecaniums this species is heavily parasitized and a season of severe injury is followed by a period of comparative freedom from injury.

I have also found the species on elm, euonymus and have it reported from Wabash County on walnut and "fruit" trees.

Wherever the species is found it should be handled exactly like San Jose scale and its natural enemies should not be depended upon to hold it in check. The lime-sulphur wash will be found entirely satisfactory as a winter spray.

935. *Eulecanium fletcheri* (Cock).

This *Eulecanium* was found on Arbor Vitae north of Indianapolis. It is an unusual form and is, I think, the only eulecanium recorded on conifers in this State. The individual scales are hemispherical and light brown in color. It is an insect of no economic importance.



EULECANIUMS THAT ARE INFESTED BY A PARASITIC FUNGUS.

Notice the rod shaped projections on the scales. (Enlarged.)

950. *Eulecanium nigrofasciatum* (Perg.).

TERRAPIN SCALE.

This interesting lecanium is reported from a few localities in northern Indiana where its work is confined to the silver maple.



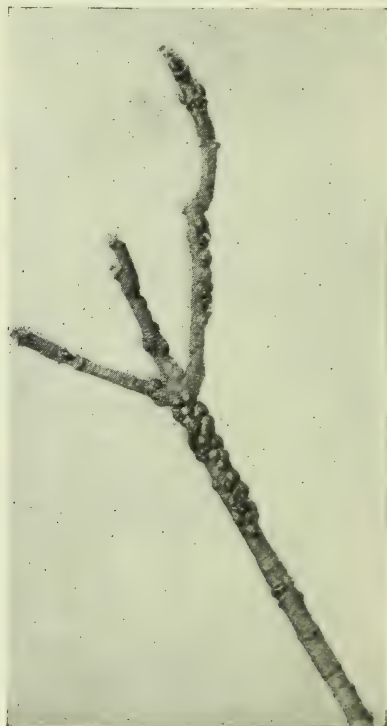
EULECANIUMS THAT ARE INFESTED BY A PARASITIC FUNGUS.

Notice the rod shaped projections on the scales.

The adults are readily recognized owing to the fact that no other lecanium is so brightly colored. The general color is brown con-

spicuously marked with red and black giving the insect the general appearance of a painted turtle.

In some localities in the East this scale has attracted a great deal of attention as a pest of the peach and some States have issued warnings to the peach growers to be prepared to fight the pest in their orchards. The injury is not so much to the tree as to the fruit. The insects excrete a large quantity of the sub-

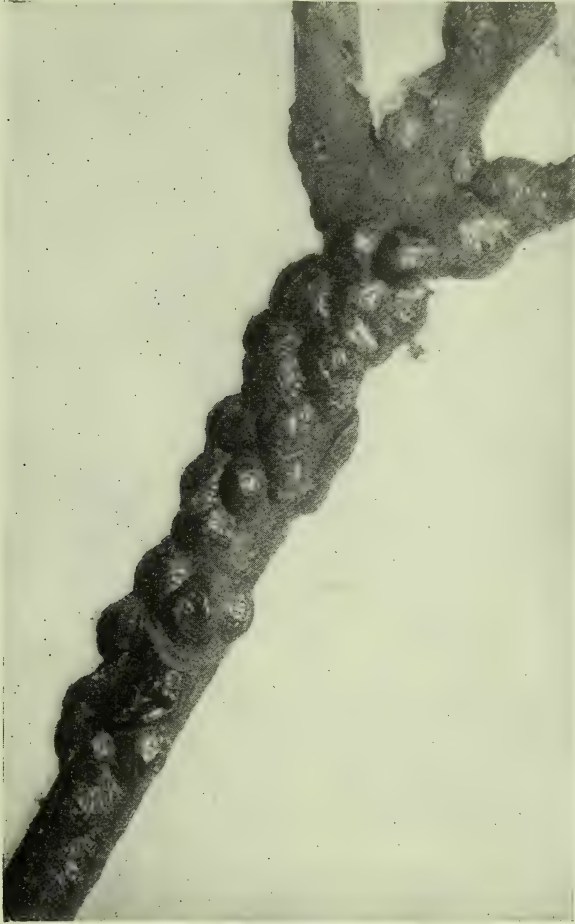


TERRAPIN SCALE.

stance known as honey dew and this collects on the fruit and furnishes a medium for the growth of a black fungus. In this way the peaches are rendered unsightly and unfit for market.

Professor Symons of Maryland has done considerable experimental spraying for the control of this scale and states that the lime-sulphur solution is not effective as a control measure. A series of experiments showed that the only solution that could be depended upon was one of the so-called miscible oils diluted one to fifteen. This solution was found to be effective if applied in the spring just before the buds opened. Some injury to the tree

is to be expected where miscible oils are used, but it is found that this injury is less in the spring than at any other time. Professor Symons advises the use of the oil to control the scale and states that it is better to risk some injury to the tree than to suffer the continued loss of crop by the work of the insect.



TERRAPIN SCALE. (Enlarged.)

972. *Eulecanium tulipiferae* (Cook).

This lecanium is confined to the tulip tree (yellow poplar of commerce) and sometimes does considerable damage. The large brown insects sometimes become so thick on the tree that they completely cover the branches, as shown in the accompanying cut.

There is only one brood of the insects each year. They appear in early summer and the young at once migrate to the tender twigs where they may be found in large numbers.

This scale was first called to my attention by Mr. J. J. Milhous of Valley Mills, who reported it on a tree near that town. The photographs were made from Mr. Milhous's specimens. Since that time it has been reported from Darlington and from Cass County.

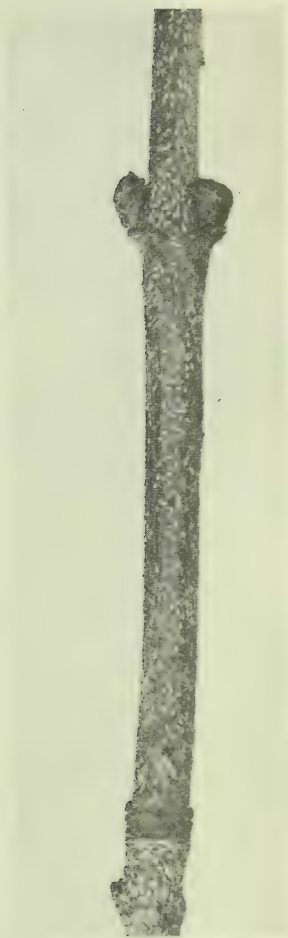


BAD CASE OF TULIP SCALE.

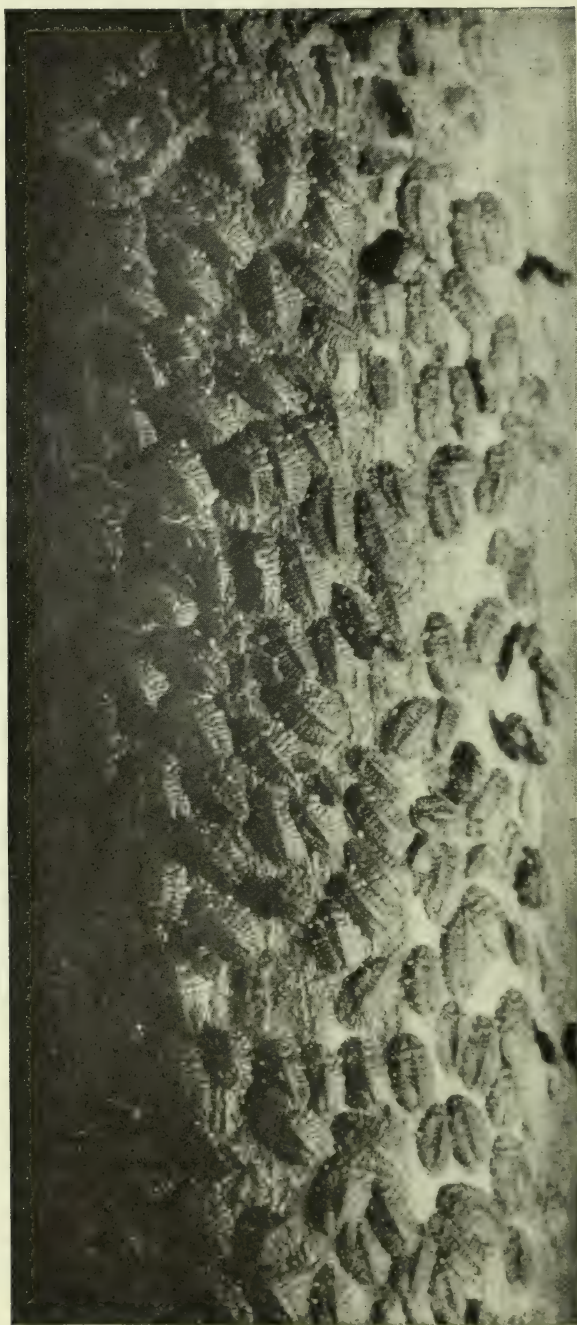
Winter spraying with the lime and sulphur will give good results in controlling this pest. The spray is best applied just after the leaves fall in autumn.



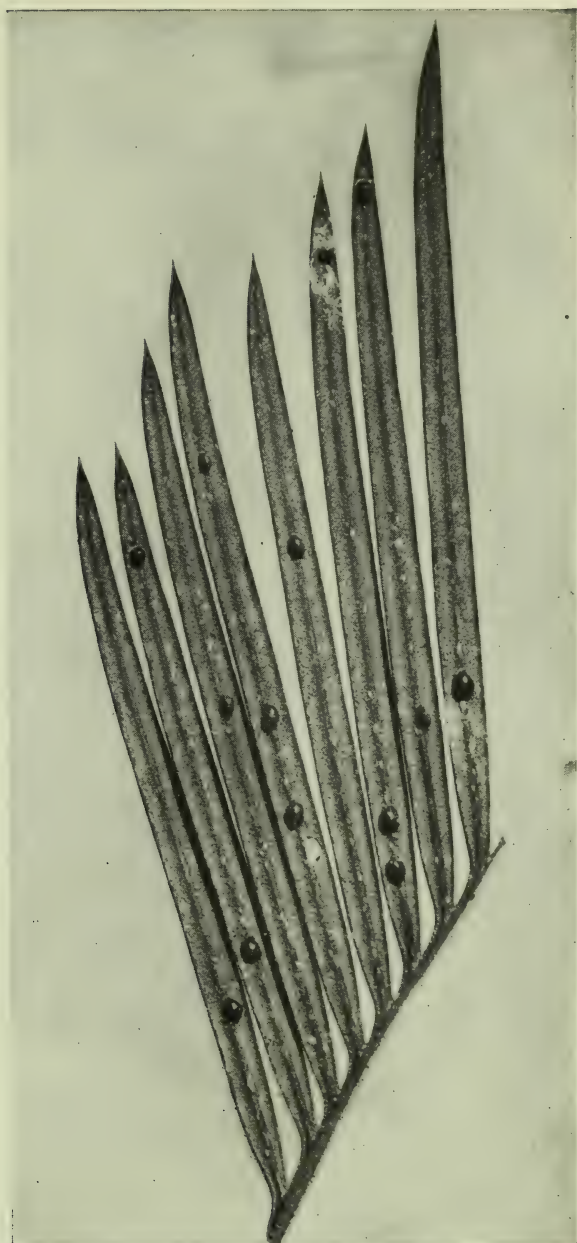
TULIP SCALE.



YOUNG TULIP TREE SCALES.



YOUNG OF THE TULIP SCALE. (Enlarged.)

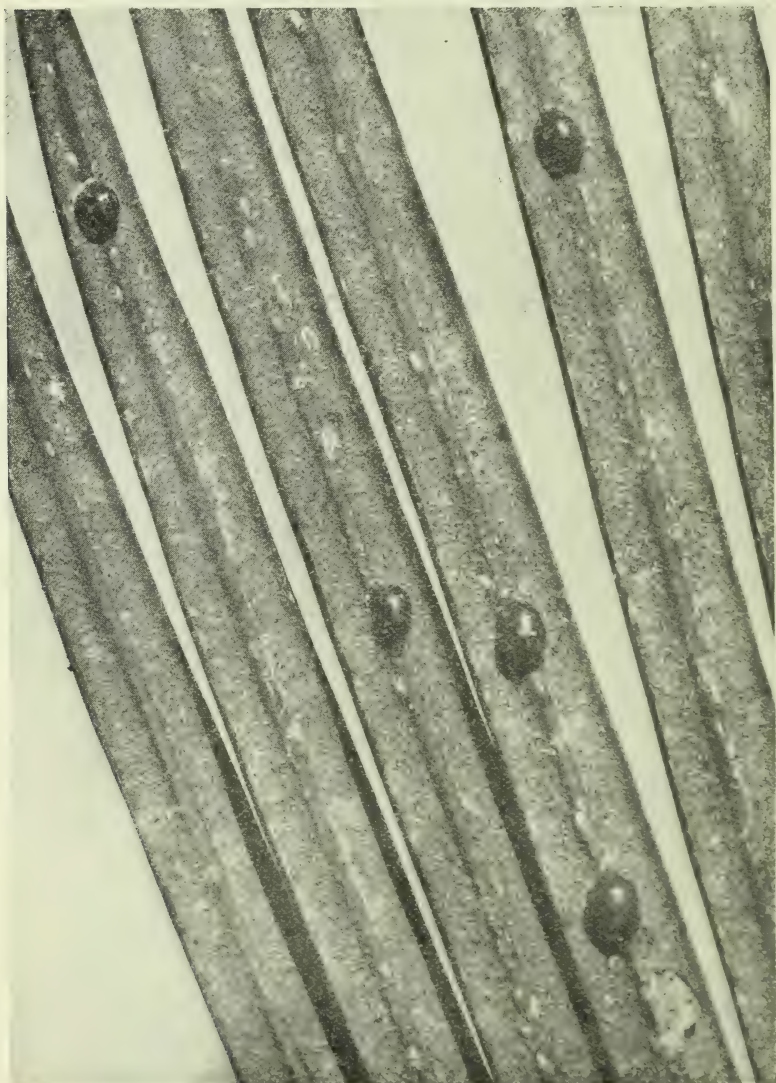


EULECANIUM HEMISPHERICA.

993. *Saissetia hemispherica* (Targ.).

HEMISPHERICAL SCALE.

This small, hemispherical lecanium is a common pest in green-houses, where it is especially common on the Boston fern. Badly infested specimens should have the worst injured fronds removed



HEMISPHERICAL SCALE. (Enlarged.)

and the balance of the plant should be dipped in a solution of whale oil soap. Fumigation with hydrocyanic acid gas will also be found effective.



BLACK SCALE

998. *Saissetia oleæ* (Bern.).

BLACK SCALE.

This scale was found in one Indianapolis greenhouse on a plant of ficus. The scales are easily recognized owing to a prominent H-shaped ridge on the dorsal surface. In California this scale is regarded as the worst scale insect that they have to contend with. In that State it is combatted by both spraying and

fumigating. In some counties as much as \$200,000 per year is spent in fumigating orange trees for this pest. With us it will remain as an occasional greenhouse pest as it doubtless can not survive our northern winters.



THE BLACK SCALE. (Enlarged.)

Quantities of honey dew are given off by the scale and on this sticky substance a black fungus grows. This fungus sometimes covers the leaves and does quite as much damage as the scale itself.

1036. *Chionaspis americana* (Johnson).

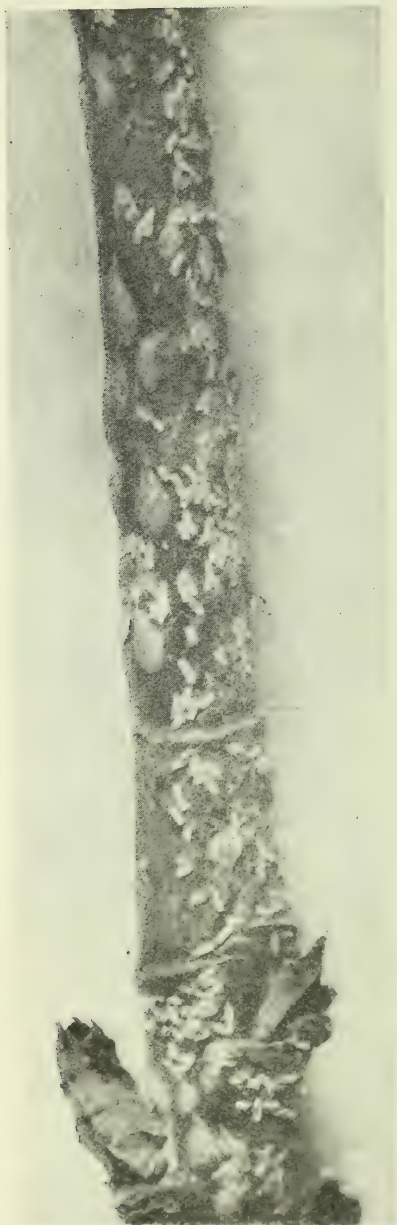
ELM SCALE.

This common scale resembles both the common scurfy scale and the oyster shell scale, although it is not related to the latter. It

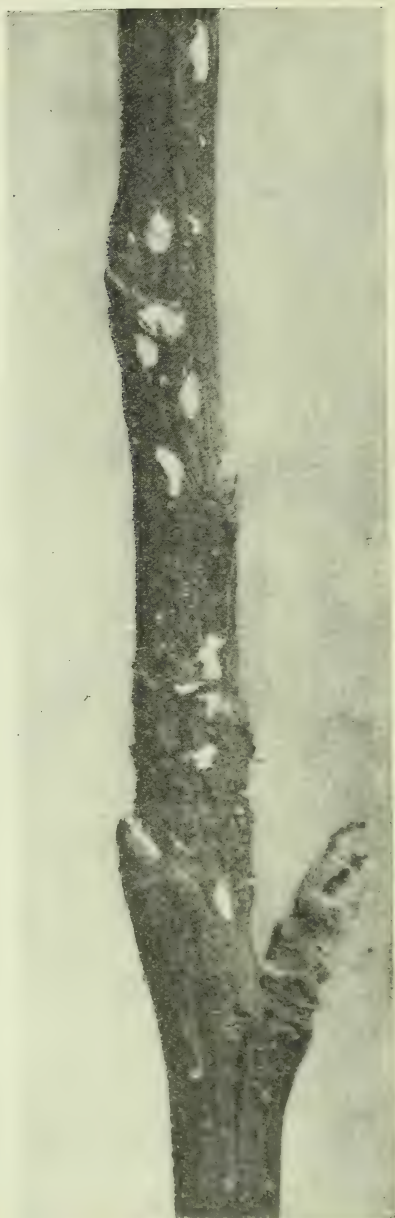


ELM SCALE.

occurs on elms in many parts of the State and in some localities does considerable damage to this tree. The trees around the state house in Indianapolis were formerly crusted with this species, in



TWIG BADLY INFESTED WITH SCURFY
SCALE. (Enlarged.)



SCURFY SCALE.

spite of the fact that a local tree doctor had sprayed them each year with a "secret" preparation for killing "scale." After some difficulty I induced the custodian of the building to purchase a small spraying outfit and after a course of treatment with the lime and sulphur solution the trees were rendered free from the



SCURFY SCALE.

pest. At the present time a change of administration has taken place and the spray pump is rusting in the basement while the scale again waxes fat on the shade trees. There is another chance for the quack tree doctor.

1045. *Chionaspis corni* (Cooley).

This scale was found on *Cornus alternifolia* in the northern part of the State. It is of no economic importance.

1055. *Chionaspis furfura* (Fitch).

SCURFY SCALE.

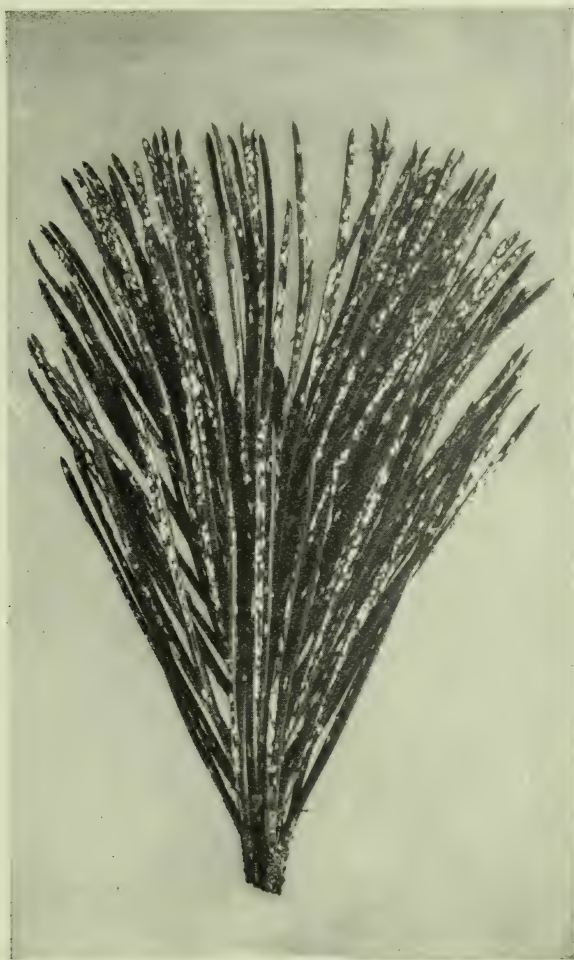
This is probably the most common scale insect in Indiana. It can be found in any apple orchard, although it does not often do any considerable damage. It is noticed on the twigs as small white blotches about an eighth of an inch in length. The male scales are smaller and usually of a brighter white. The males also



PINE SCALE

differ in shape as is shown in the cut. The insect passes the winter in the egg state under the protective scale of the old female. For this reason it is not an easy insect to control. The insecticide employed must not only penetrate the scale covering but must be strong enough to destroy the somewhat resistant eggs. The lime-

sulphur solution is only fairly successful in this regard and it is probable that the miscible oils will be found to be the best destroyers of this class of insects. It must always be remembered that the oil solutions are liable to cause a permanent injury to the tree that may be greater than the injury of the scale itself. The



PINE SCALE.

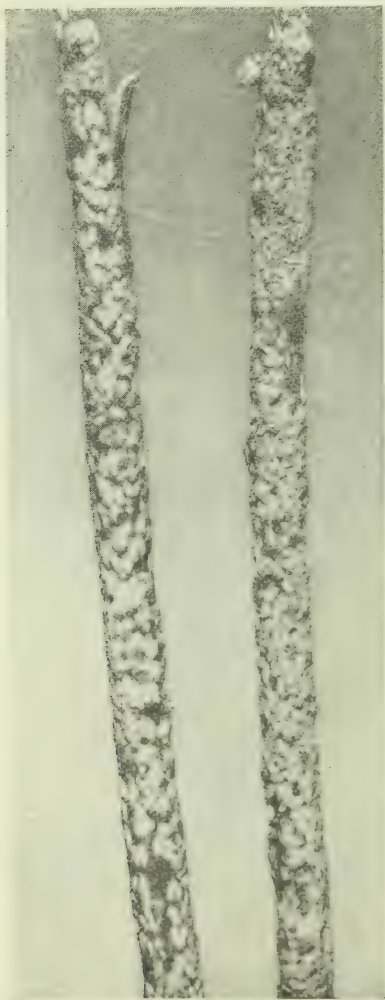
eggs of the scurfy scale are a reddish purple in color and when the insect is crushed the substance of these eggs is exuded as a reddish juice.

Fumigation will have no effect on the insect during the dormant period so that the hydrocyanic acid gas treatment of nursery stock is no protection against this scale.

1073. *Chionaspis pinifoliae* (Fitch).

PINE SCALE.

This scurfy scale of the pine is common on various conifers but is especially common on white pine. With the accompanying figures no description is needed as the scale could not be confused with any other form.



WILLOW SCALE.

Owing to the possible injury to the foliage it is impossible to employ strong insecticides against this pest. I have always advised the use of whale oil soap, to be applied early in the spring. Good results generally follow a thorough use of this material.



SCURFY SCALE OF THE WILLOW.

Showing some of the scales removed to show the eggs in winter. (Enlarged.)



WILLOW SCALE. (Enlarged.)

1082. *Chionaspis salicis-nigrae* (Walsh.).

WILLOW SCALE.

This bright white scale is sometimes found on the native willows in various parts of the State. It resembles the common scurfy scale but is much whiter. The life history is similar to the common scurfy scale and the accompanying pictures of the scales opened to show the winter egg masses would serve equally well for either species.

1127. *Aulacaspis rosae* (Bouche).

ROSE SCALE.

The rose scale is common on rose, raspberry and blackberry plants. It seldom bothers well cared for plantations, but often forms a crust on the stems of neglected plants. The individual female scales are nearly circular in outline and are loosely attached to the twig. The insect passes the winter as an immature individual and is readily killed by fumigation. I know of one case where the canes in a raspberry patch were completely crusted over, but the year following no traces of the scale were to be found. The careful grower will not depend on the parasites to keep this or any other insect in check but will employ prompt measures of eradication. In this case the lime and sulphur will be found to be entirely satisfactory.

1143. *Hemichionaspis aspidistrae* Sign.

This scale is reported from one locality—an Indianapolis greenhouse, where it was doing no damage.

1200. *Aspidiotus ancylus* Put.

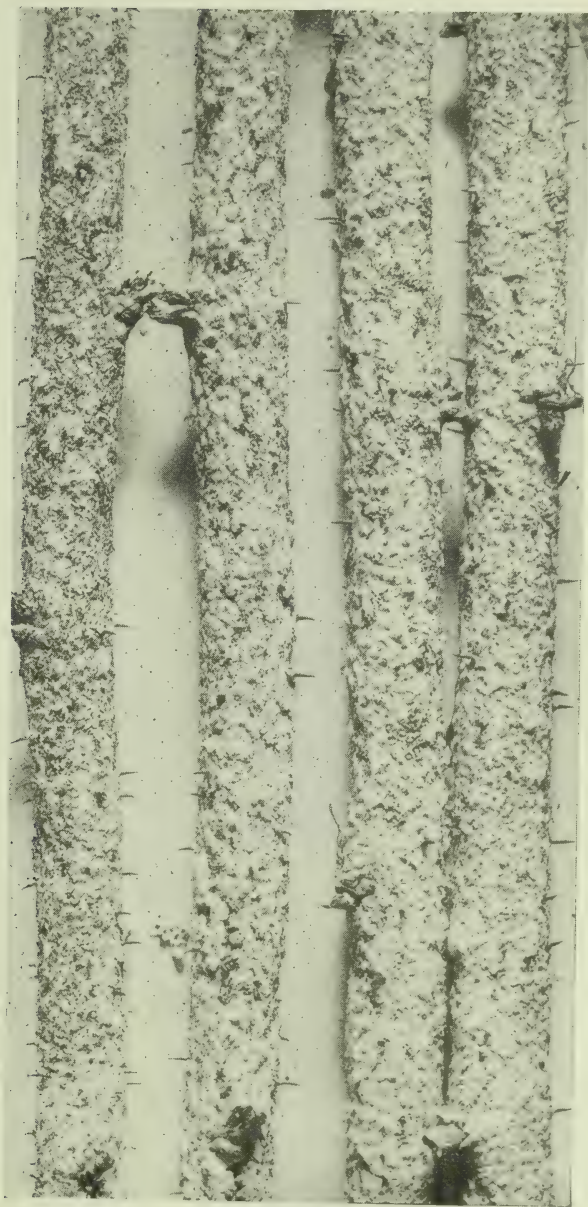
PUTNAM SCALE.

This scale is an important pest on many varieties of both shade and fruit trees. It is a close relative of the San Jose scale and resembles that insect to a considerable extent—indeed the inexperienced entomologist is extremely likely to get the two forms confused.

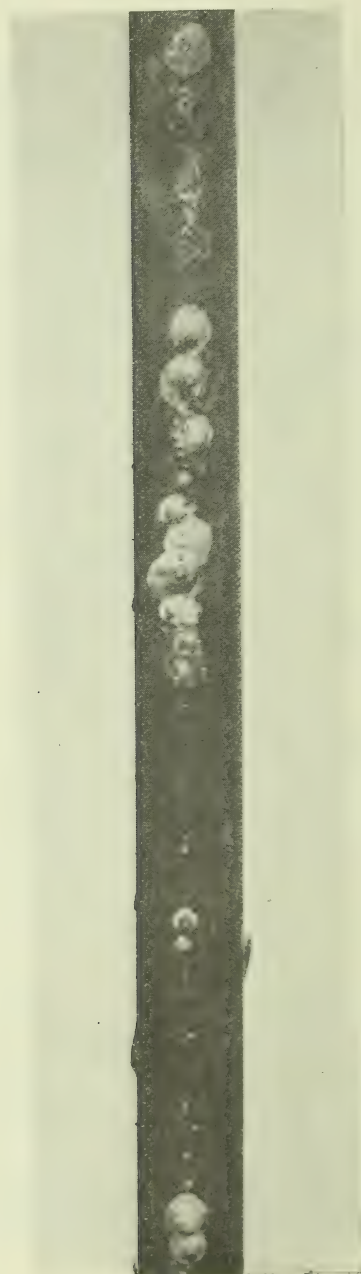
The mature female insect is orange yellow in color and is protected by an almost circular plate or scale which entirely covers the body. This plate appears, under a slight magnification, to be



ROSE SCALE ON RASPBERRY.



ROSE SCALE.



ROSE SCALE.



BARK FROM HICKORY BADLY INFESTED WITH PUTNAM SCALE



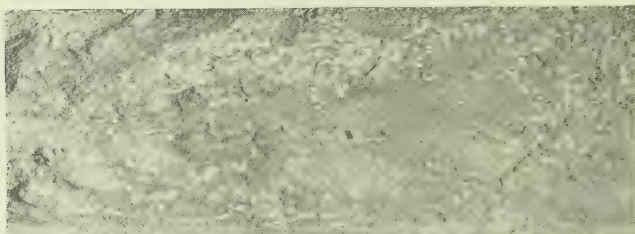
PUTNAM SCALE. (Enlarged.)



PUTNAM SCALE. (Enlarged.)

composed of a series of rings rising to a nipple-shaped cone. These rings are eccentric in their arrangement whereas the rings on the San Jose scale are concentric. The center of the cone is often, although not always, bright orange in color.

The scale passes the winter as a more or less mature female,



PUTNAM SCALE ON HICKORY.

most if not all of the males perish in the winter. There is but one brood of young each year, but owing to the fact that the winter is passed in a more or less complete stage of development, the young appear continually throughout the season.



PUTNAM SCALE. (Enlarged.)

The scale sometimes attacks nursery stock, especially soft maple and linden. It is then subject to fumigation the same as the San Jose scale.

1229. *Aspidiotus forbesi* Johnson.

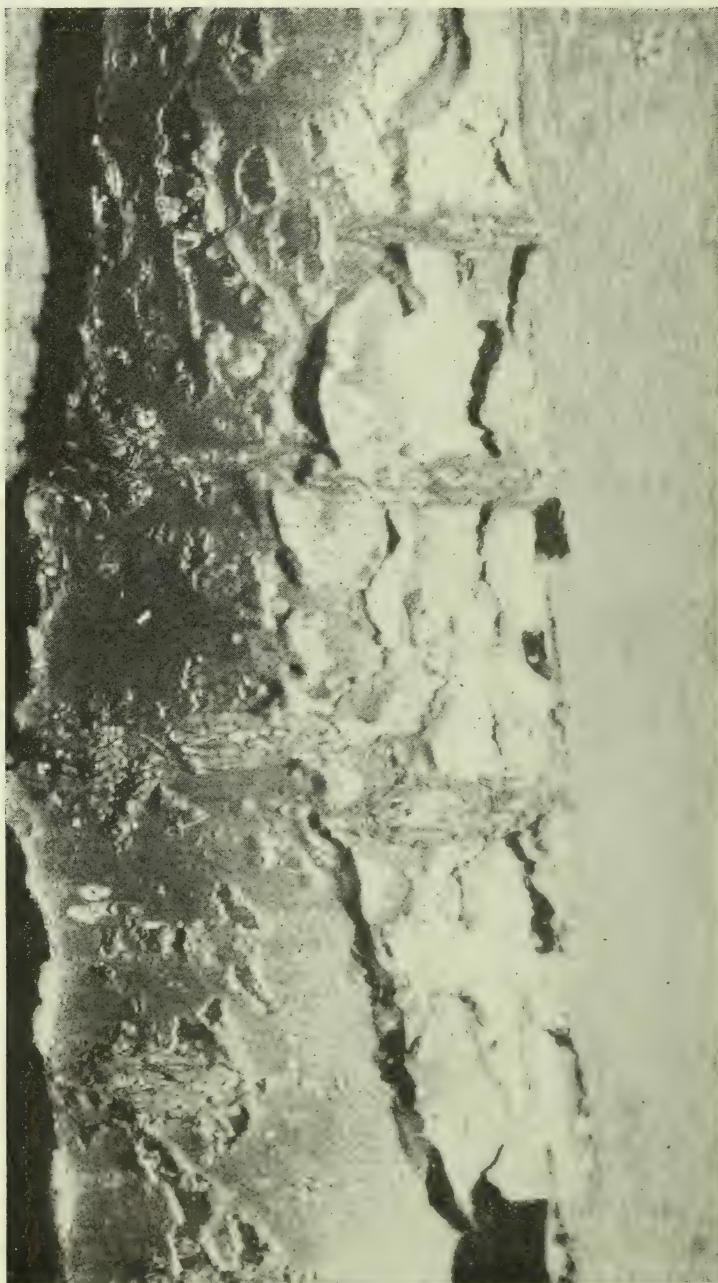
CHERRY SCALE.

This relative of the San Jose scale is fairly common over the State on sour cherry. Most reports of San Jose on cherry are found to be not San Jose scale at all but this native scale.



ASPIDIOTUS HEDERAE. (Enlarged.)

The individual insects have the habit of locating themselves under the loose bark on the tree. The scales are flatter, lighter in color and not so concentric as the San Jose scale.

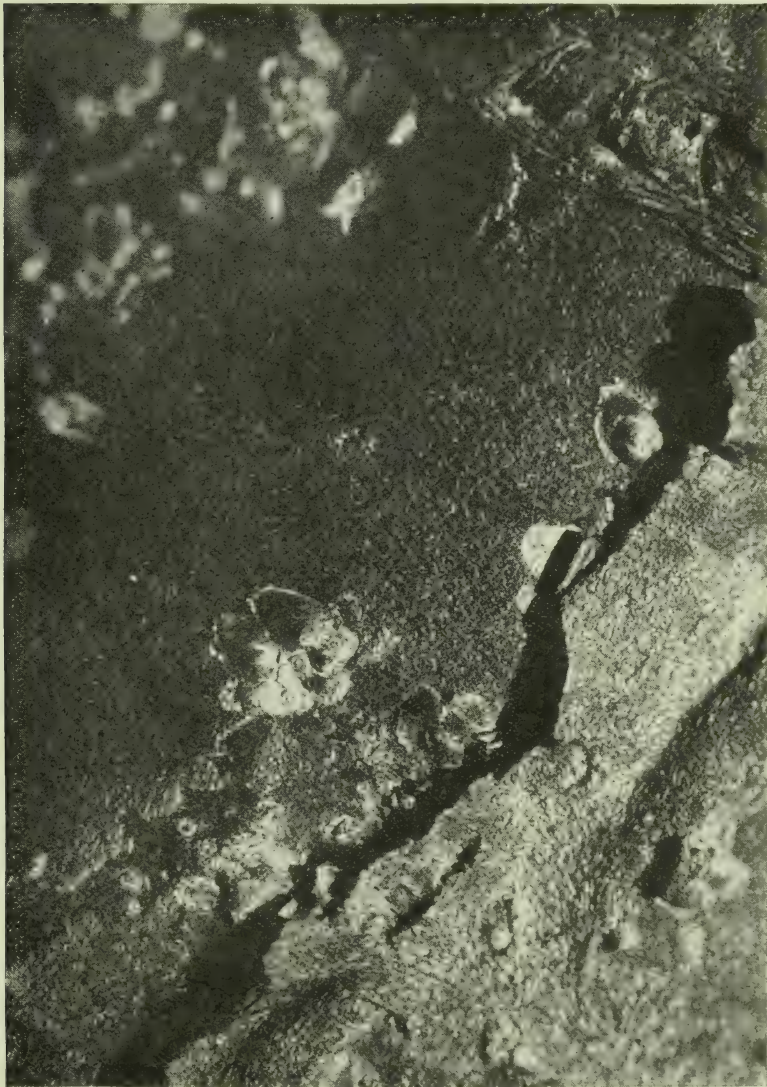


CHERRY SCALE. (Enlarged.)

1233. *Aspidiotus hederae* (Vall.).

OLEANDER SCALE.

This scale is reported as injuring a number of greenhouse plants in the north, and many varieties of plants in the tropics.



CHERRY SCALE. (Enlarged.)

It can not live out of doors in our northern winters. It is most commonly reported on English ivy and it is on that plant that I found the single specimen I have to record.

The scales are white in color with a more or less distinct yellow center. They are nearly circular except in cases where the individuals have been distorted by crowding.

Like many other greenhouse scales, these insects breed throughout the year and if neglected they may cause considerable damage. Infested plants should be fumigated or sprayed with whale oil soap at the rate of one pound to four gallons of water.

1239. *Aspidiotus juglans-regiae* Comst.

ENGLISH WALNUT SCALE.

This important scale insect belongs to the same genus that the San Jose scale belongs to and it resembles that scale to a great degree. The scale is a serious pest on shade trees in the city of Indianapolis and is doubtless to be found in other parts of the State.

It is quite common on hard maples and linden. The scales sometimes cover the trunk and branches of the infested trees and they are to be controlled the same way that we control the San Jose scale. The insect has but one brood each year and for that reason it does not spread as rapidly as does the San Jose scale.

1256. *Aspidiotus perniciosus* Comst.

SAN JOSE SCALE.

It is probable that this insect has done more to bring the subject of entomology into the public eye than any other form to be found in America. In this respect the San Jose scale has done a great public service in the way of awakening the public to the danger that confronts America in the way of injurious insects from abroad. The San Jose scale was introduced into America more than thirty years ago on nursery stock that was imported from China. The scale first became established in California and was described by Professor Comstock at San Jose. It is from this town that the insect got its common name.

Eastern nurseries carried the pest across the continent and it became established in New Jersey. The first record of the pest in Indiana is in 1893, when Mr. Edgar M. Wood of Madison found a peculiar condition on some Seckle pear trees that he had purchased from J. L. Loyett of Little Silver, N. J. These trees were submitted to Professor Slingerland of Cornell, who confirmed Mr. Wood's identification of the pest. These first trees were dug and

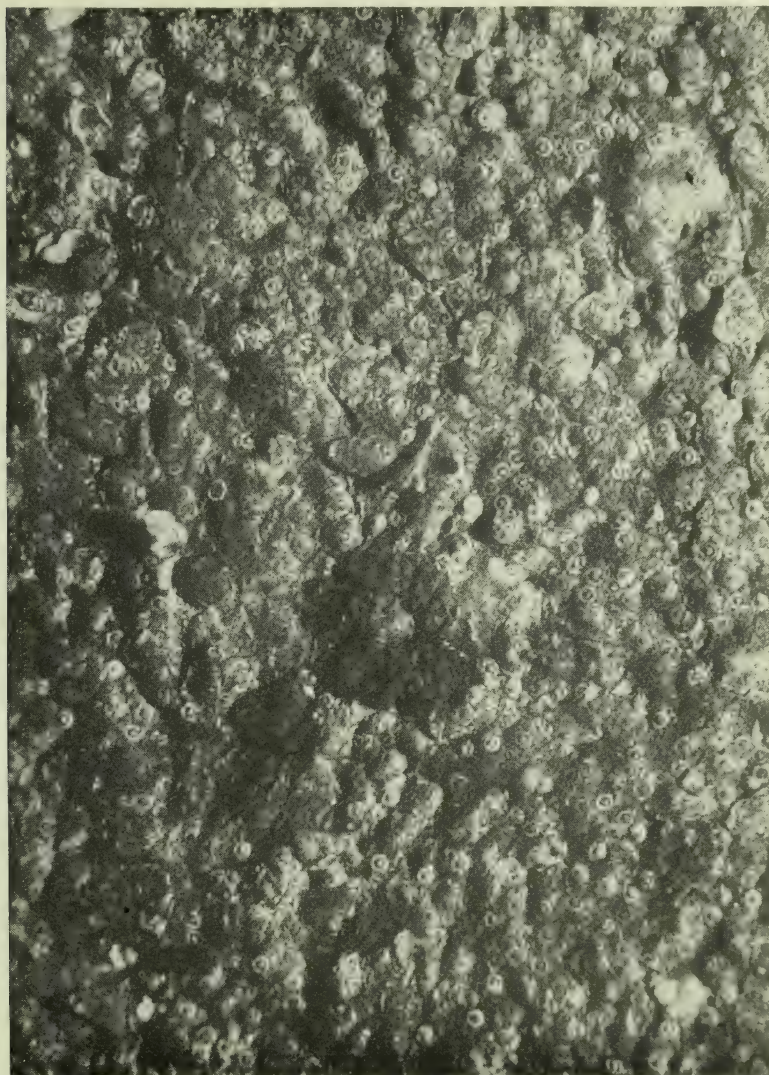


ORCHARD KILLED BY SAN JOSE SCALE.



HEDGES INFESTED WITH SAN JOSE SCALE THAT HAVE BEEN CUT AND BURNED.

burned, but the next year Mr. Wood found more scale on other varieties of pear obtained in the same lot with those he had burned. It is probable that all of the trees planted at that time



SURFACE CRUSTED WITH SAN JOSE SCALE.

were more or less infested, and during the summer of 1894 the insects had an opportunity to increase and spread. At about the same time (1894) the scale was found on adjoining farms on peach trees that had come from Parry's nursery, also of Little Silver, N. J.

This early infestation at Madison has been the center from which the scale has spread in all directions, until it now covers that entire section.



FEMALE, SAN JOSE SCALE WITH YOUNG.

In 1896, Professor Webster of the United States Department of Agriculture, found the scale on pear trees in Ben Davis. These trees also came from the Parry nursery at Little Silver, N. J.

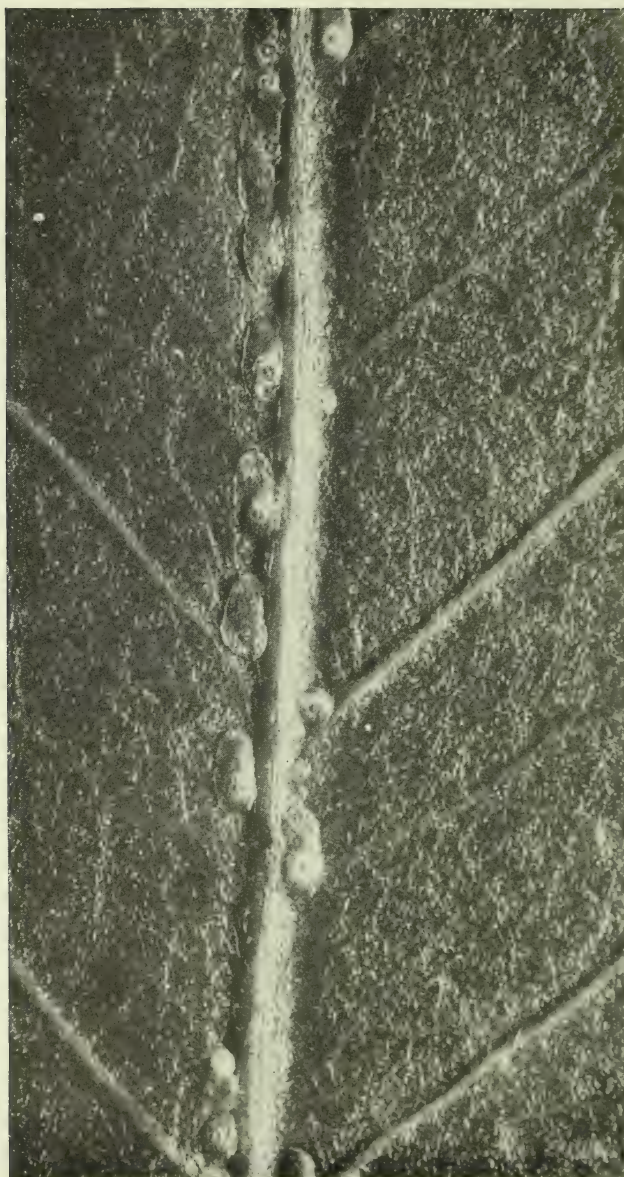
It has been stated by a prominent nurseryman that most of the scale shipped into Indiana on nursery stock came from a firm located at Dayton, Ohio. From this central point of infestation



SAN JOSE SCALE. FEMALE WITH YOUNG.

the pest was sent all over this State and soon the local nurseries became infested and did their part in distributing scale to the farmers.

Life History.—The San Jose scale begins life as a minute sulphur yellow insect that is capable of crawling about on the surface of the plant on which its parent is attached. After a period of



MALE SAN JOSE SCALES ON LEAF.

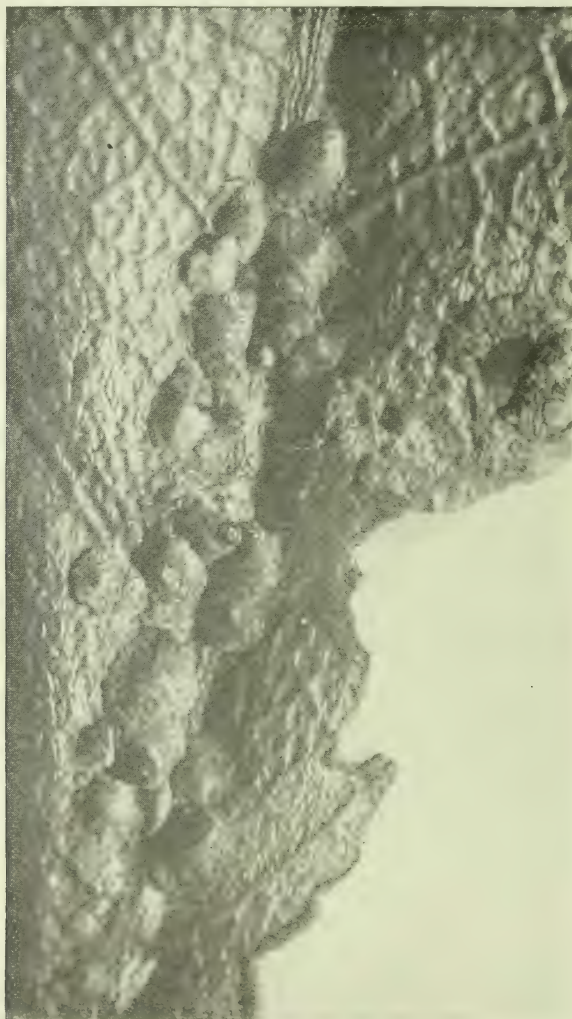
about twenty-four hours the young scale settles down and attaches itself to the surface tissues of the plant that it happens to be on. Its feeding beak or proboscis is inserted through the bark and it obtains its food by sucking the juices from the plant. In a short time, varying some with the season, the young insect secretes a covering of white wax. This little covering is the beginning of what is to become the "scale" covering or shield that protects the soft body of the insect during the rest of its growing existence. This plate or scale is secreted in rings as the insect grows inside and ultimately it forms a plate about one-sixteenth of an inch in diameter. The rings that form this plate are concentric and in the center is a slightly raised place, giving the scale its characteristic crater-shaped form. The male scales are slightly elongated in order to accommodate the developing wings of the adult male. The males only are winged, for the females remain attached to the host plant throughout their existence. A badly infested tree will have the bark so covered with the scale that no normal plant tissue can be seen—the entire surface is simply crusted. The male scales often attach to the leaves of plants, and practically all of them die in the winter.

The females pass the winter in various stages of development. There are many generations each year and the active scales will be found quite late in the fall. I have found them in northern Indiana late in November, and in mild seasons they may continue to breed even later than this.

The principal measure practiced on the San Jose scale is winter spraying with the lime-sulphur solution. This is simply a solution of lime and sulphur made by boiling 50 pounds of each in 150 gallons of water for about an hour. This preparation will kill every scale with which it comes in contact. Failures with it are due to the fact that it is not properly made or that it is poorly applied. A tree that is sprayed for any scale insect must be thoroughly soaked with the solution. The tree must be just as wet as if it had been taken up by the roots and dipped into a tank containing the mixture. If the tree is sprayed from only one side the scales on the protected side will live to reinfest the entire tree early in the summer.

The commercial lime and sulphur preparations are fully equal to the home-made solutions, and can be substituted for it. The so-called miscible oils are not recommended, owing to the fact that when they are used strong enough to kill the scale they also prove injurious to the tree.

Where nurseries are found infested with the San Jose or any other scale insect that winters in any but the egg stage we require that all stock sold be fumigated. This fumigation consists of ex-



ASPIDIOTUS RAPAX.

posing the stock to the vapor of hydrocyanic acid gas for forty-five minutes. The question of fumigation is of especial interest only to nurserymen and it has been fully covered in my first annual report.

1261. *Aspidiotus rapax* Comst.

The female scales of this species resemble the San Jose scale very closely. They differ in that the scale covering is less flattened and the color is lighter. As in the Putnam scale, the yellow insect sometimes shows through the apex of the scale covering.

The species is confined to greenhouse plants and is reported from only one locality in Indianapolis, where it was found by Mr. Morrison. The specimens found were on laurel and were doing considerable damage. Isolated cases of this sort can probably best be handled by destroying the plants on which they occur.

1272. *Aspidiotus uvae* Comst.

GRAPE SCALE.

This interesting and important scale was found on grapes at Vincennes, Indianapolis, and in Harrison County. It is by far the most important scale insect affecting the grape and can not be readily mistaken for any other form.

The scales, which are similar to the San Jose scale, sometimes completely cover the canes, and plants are often killed by them.

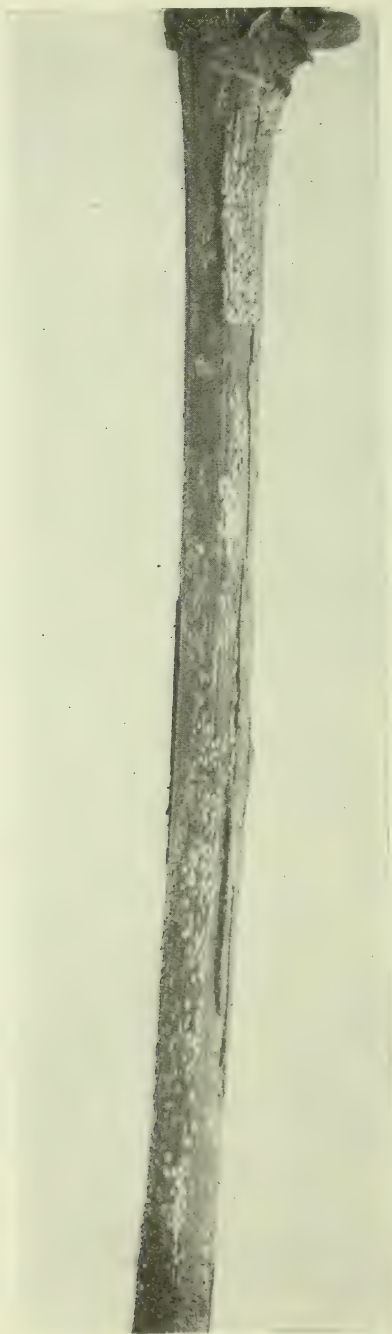
The accompanying cuts fully illustrate the pest, and further description is not necessary. They can be controlled by the use of the lime and sulphur solution in the winter time.

1294. *Chrysomphalus aonidum* (Linn.).

CIRCULAR SCALE.

This is a pest of greenhouses and is not established in the open anywhere in the State to my knowledge.

The scale is dark in color and is almost entirely circular, resembling the San Jose in this regard, but it is much smoother than the San Jose scale. The surface of the scale is a shining dark brown, although there is some of the concentric ring appearance which is so characteristic of the San Jose. It is well shown in the accompanying cuts. Palms and figs seem to be especially subject to its attack.



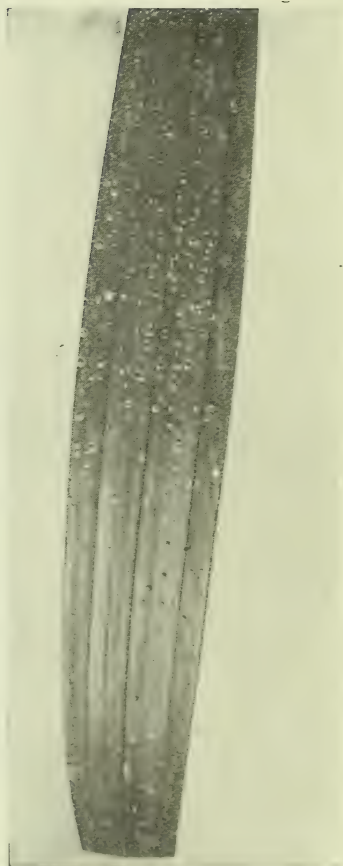
GRAPE SCALE.



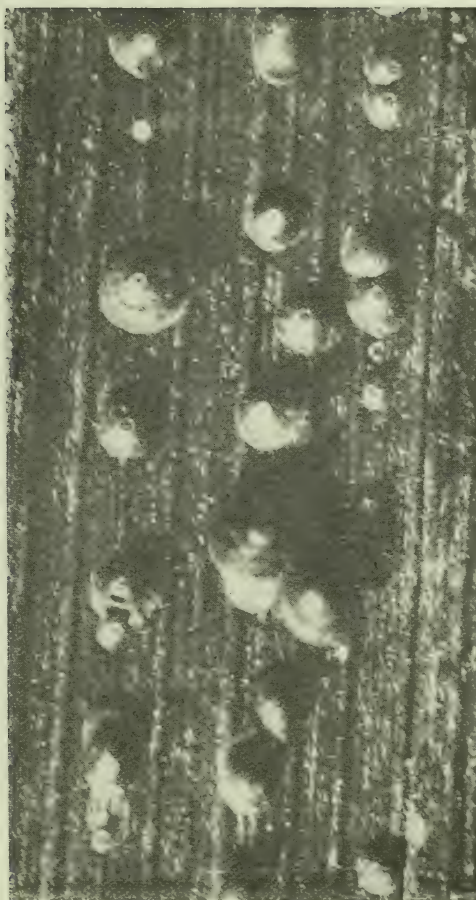
GRAPE SCALE. (Enlarged.)



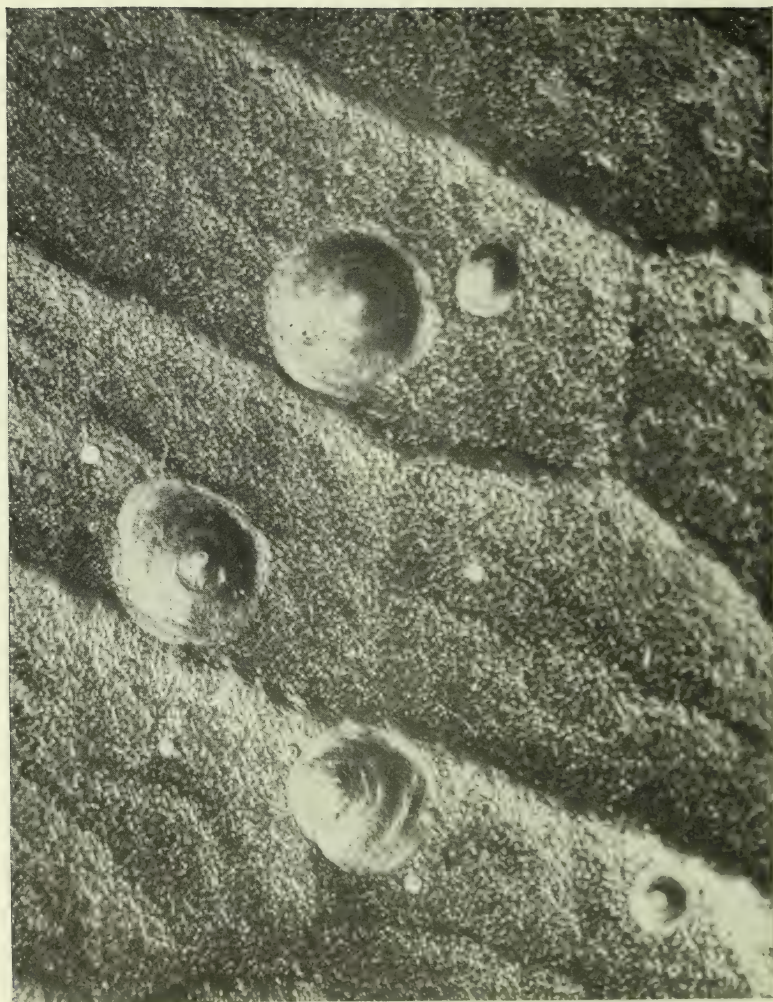
CIRCULAR SCALE. (Natural size.



CIRCULAR SCALE ON FIGUS.



CIRCULAR SCALE. (Enlarged.)

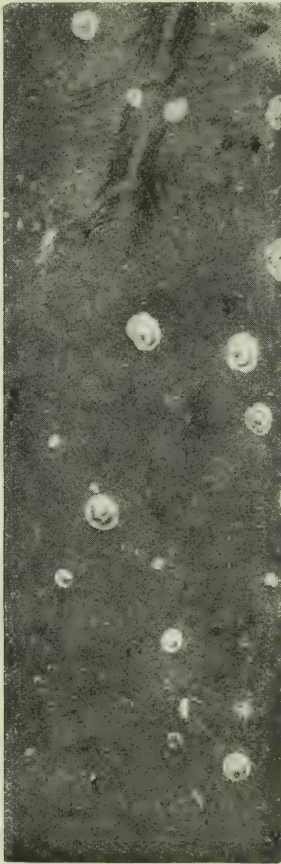


CIRCULAR SCALE. (Enlarged.)

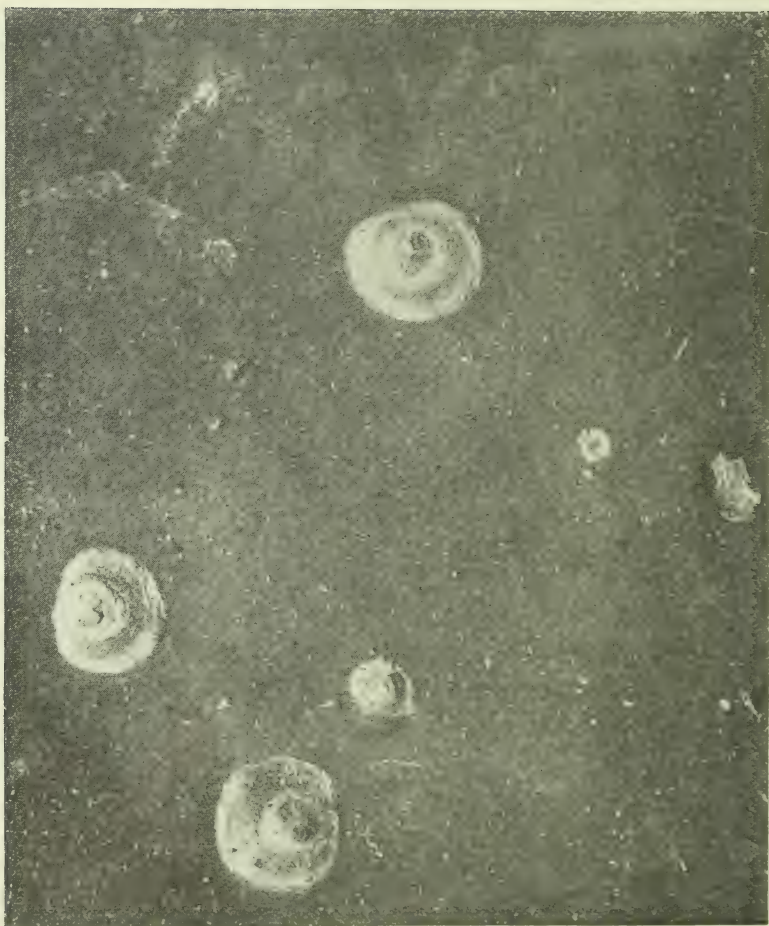
1300. *Chrysomphalus dictyospermi* Morg.

MORGAN SCALE.

This scale is very similar to the circular scale except that the individuals are lighter in color and are flatter. It is a greenhouse pest of rather uncommon occurrence.



MORGAN SCALE:



MORGAN SCALE. (Enlarged.)

1377. *Lepidosaphes becki* (Newm.).

PURPLE SCALE.

This is one of the most important scale insects of the citrus fruit districts and is often sent into Indiana on oranges and lemons. It resembles the common oyster shell scale that we have in Indiana.



PURPLE SCALE. (Enlarged.)

Sent into Indiana on citrus fruits. This form is not to be feared as it would not survive our winters.

1431. *Lepidosaphes ulmi* (Linn.).

OYSTER-SHELL SCALE.

This common and destructive scale is one of the most important pests with which we have to deal in this State. It attacks many varieties of plants and is especially injurious on apple,



OYSTER SHELL SCALE.



OYSTER SHELL SCALE ON WILLOW.

maple, poplar and willow. It is also a very common pest on lilac bushes.

The cuts show the scales so well that an extended description is not needed. The scale winters in the egg stage under the shell



OYSTER SHELL SCALE. (Enlarged.)

of the parent scale. These eggs are white in color and oval in shape. There will be from fifty to one hundred under each old scale. In this way the insect is doubly protected by being in the egg stage and by having these eggs covered with the old scale. The eggs hatch in spring, generally during the month of May,

and it is at this time that the young scales can most easily be controlled. A coal oil emulsion can be applied while the scales are still young and a majority of them will be killed. The only ob-



A SOFT SCALE ON HICKORY THAT SEEMS TO BE NEW TO SCIENCE.

jection to this treatment is that the leaves are already on the trees and for this reason thorough work can not be done. The full strength lime and sulphur applied during the dormant season has not given entire satisfaction, but I believe that if two appli-

cations are made, one in the fall and one in the spring, the insect will be controlled absolutely. I do not favor the use of any oil spray on trees, as it is often attended with injurious results.

The fact that the insect winters in the egg stage makes it a very hard one to deal with in the nursery. It can not be killed by the use of hydrocyanic acid gas, and as a result any infested trees must be destroyed. The planter of apple stock should be very particular to examine his tree to make sure that this scale is not present.

The scales have but one brood each year throughout Indiana. It is more often met with in the central and northern counties than in the south, although I have found it in almost every county in the State.

NOTE ON A NEW SPECIES.

In August, 1911, I was collecting with my assistant, Mr. Harold Morrison, in Brown County, and on shell-bark hickory trees we found what appears to be a new species of scale insect.

A few adult females were found under flakes of bark. At that time they were bringing forth living young in considerable numbers. The young showed a tendency to gather in clusters, as shown in the accompanying photograph, which was made in the laboratory a few days later.

The adults were about 2.5 mm. in length. Antennæ eight jointed. Body clearly segmented pink or flesh color and more or less covered with a white waxy secretion.

Specimens were sent to Dr. L. O. Howard, at Washington, and to Professor R. W. Doan of Stanford University, but so far the species remains unidentified. It may be that additional material will show this to be a distinct species. Next season's work will be necessary in order to determine this point.

MISCELLANEOUS INSECT NOTES.

Periodical Cicada.—The 13-year brood of the Periodical Cicada was due to occur in several counties in southern Indiana the past season. After a diligent inquiry, I have been able to find but two records of the occurrence of the Cicada this season. One of these records is by Mr. Charles C. Deam, the secretary of the State Board of Forestry, who reported the insect near Goose Pond, in Posey County. The other record is from Mr. W. C. Reed of Vincennes, who states that the Cicadas were exceedingly numerous in the vicinity of his nursery in May, but, while they appeared in large numbers they remained only a very few days. A severe storm of May 30th seemed to destroy a large portion of this brood, and it is reported that after the storm practically no Cicadas were to be found. No injury was reported in either case.

Several other reports to the effect that the Cicadas appeared in various places were investigated and in each case it was found that the insects referred to were not the thirteenth- or seventeenth-year species, but the two-year Cicada. This two-year form seems to have appeared in unusual numbers in quite a number of places in Indiana during the past season. The thirteen-year brood is the one known to entomologists as brood 23, and it has been facetiously claimed by some entomologists that this number which has been applied to it has something to do with the nonappearance of the brood in many localities where it was expected this season.

Strawberry Leaf Rollers (*Pacoetia obsoletana*).—This insect was unusually prevalent in many localities this season. In one or two cases I had to refuse to issue certificates to strawberry growers whose patches were severely infested with this pest. There is absolutely no excuse for a careful grower allowing his berry patches to become badly infested with this insect. The adult moth lays the egg on the leaf of the strawberry and the young caterpillars eat the surface and fold the leaves over them for protective covering. The cocoons are finally spun within these rolled leaves. Some patches that I have seen had practically every leaf either eaten or rolled with a larva on the inside of the rolled leaf.

An early application of any of the common insecticides, such as Paris green or arsenate of lead, preferably arsenate of lead,

would result in the complete eradication of this pest, or the excellent practice of burning over the strawberry patch after they have fruited would destroy thousands of them and hold the insect completely in check. I can see no reason for the intelligent strawberry growers failing to take these precautions.

The practice of burning the beds over is an especially valuable one, for it not only controls this particular pest, but will destroy many other leaf-eating insects and will do a great deal in the way of controlling the strawberry leaf blight which, in some sections, is in itself quite a barrier to the successful growing of this profitable fruit.

The Wheat-Stem Maggot (*Meromyza americana* Fitch).—During the past season, this pest of the wheat was reported from several localities in the northern part of the State. In some instances, the work of this insect was confused with the work of the more common and more injurious insect, the Hessian Fly. The larva of the insect burrows in the stalk of the grain and causes the head of the grain to turn white and they fail to fill out. The wheat-stem maggot is a native insect and naturally occurs on various species of native grass. It has adopted the wheat since agriculture was introduced into America, and in some seasons is quite injurious. Like nearly all of our native insects, this pest is controlled by parasites and, as a rule, does not occur in injurious numbers two seasons in succession. Owing to the fact that the insect lives on native grass it is more difficult to control than the Hessian Fly, which can be perfectly controlled by trap crops, as suggested elsewhere in this report.

Investigations in the West indicate, however, that the wheat which is planted in October is less liable to injury from this pest than the wheat planted earlier in the fall. This is in line with the same practice regarding the control of the Hessian Fly. The following life history of the insect is taken from Professor Lawrence Bruner's account.

"The adult is a small, greenish fly, marked on the thorax and abdomen with three black stripes. It raises three broods a year, passing the winter as a larva in the winter wheat, transforming into the pupa in the following spring and immediately thereafter, in latter May and early June, issuing adults of the first brood, which may reattack the same plants or spread to other fields or grasses. The female oviposits upon the young growing stems at the edge of or beneath the sheath-like upper leaves. The eggs are very small, white, elongated, with pointed ends, and plainly ridged

lengthwise. The larvae, which soon hatch from them, are also small and slender, about a quarter of an inch long when full grown, with the head end pointed and the other obtuse, in color greenish white. They work their way to a point just above the upper joint, where they enter the stem, tearing the tissues with a pair of black hooks situated near the sucking mouth, and feeding upon the plant juices. The ravages of the growing maggot cause the unfilled head and upper joint of the wheat to die and turn white, while the rest of the plant continues alive and green. These larvae mature by the middle of June, pupate, and the adults of the second brood appear in July. This brood is reared on volunteer grain or wild grasses, and brings forth its adults in September and October. This third brood attacks the winter wheat and remains therein until spring. The effect of the larvae upon the winter wheat is to cause the central tubular leaf of the infested plant to shrivel and die, turning yellow, the larva being located within the stem just above the root."

The Hessian Fly (*Cecidomyia destructor* Say).—During the past season the Hessian Fly has been unusually destructive in the wheat fields of certain portions of northern Indiana. In some fields which I have observed the extent of the injury was so great that the grain was scarcely worth the cutting. It is probable that the dry weather of the early summer has served to some extent in reducing the numbers of these insects and may possibly be an important factor in their control for the next year. In badly infested districts, the farmers should adopt preventive measures against this insect. It is one that yields very readily to preventive work, and unless some measures are adopted to check its progress it will cause thousands of dollars worth of damage. There are three factors which enter into the control of the Hessian Fly.

The first of these consists in the burning of the stubble fields after the wheat harvest, and ordinarily it is advisable to do this just as early in the summer as possible. During a dry season the flies may remain in the stubble for a long period, but with occasional rains their emergence may be hastened and they may leave the stubble before the burning has accomplished its purpose. Early burning is also advisable for the control of several other injurious wheat infesting insects.

The second factor in the control of this pest consists in planting what we know as trap crops. This simply consists of a few rows of wheat planted around the proposed wheat field late in the summer. This trap crop should be planted not later than the

last week of August and should be plowed under about four of five weeks later.

Third factor in the control of the fly is to see that the wheat is planted just as late in the fall as possible. In this way, the insects are forced to lay their eggs on volunteer wheat and possibly on other grasses and the main crop will be saved. Some farmers hesitate to employ the method of a trap crop, owing to the fact that their neighbors will not co-operate with them. They fear that they will have all the labor and expense of the work and that their neighbors' infested fields will serve to reinfest theirs the following spring. While there is some room for argument of this question, it has been demonstrated beyond a doubt that the farmer who applies the trap crop will be far better protected from the Hessian Fly than will his neighbor who does nothing at all to prevent the injury. This is due to the fact that the Hessian Fly will not leave the parent field at the spring of the year but will reinfest the wheat in the immediate vicinity where it is hatched. It is true that the insects are sometimes blown by the wind for a very considerable distance and in this way they may reinfest a field a long ways from the field in which they were originally hatched. Like all preventive insect work, it is well for all the farmers in one section to work together and co-operate in the control of a pest of this sort. A co-operative work in a community will be of vast importance to the members of that community, provided they can all work together in harmony and can plan their work to advantage. The following detailed life history is from Professor Lawrence Bruner's excellent account of the insects:

"The adult flies of the fall brood begin to issue during the last days of August or early in September, and shortly after emergence and subsequent fertilization, the females fly to the young wheat plants and deposit their eggs in regular rows of one to a dozen or so along the depressions of the veins on the upper surface of the wheat blade, somewhere between the tip and the junction with the stem. These eggs are very small, about one-fiftieth of an inch in length, cylindrical, with rounded ends and of a glossy reddish color. A single female may lay as many as a hundred or even two hundred or more eggs. The adult flies are very short lived, and after the duties of reproduction are accomplished they usually die within a few hours, three or four days constituting the usual lease of life.

"In three to five days, according to condition, these eggs

hatch, and the little larva, scarcely larger than the egg from which it has developed, migrates down the blade and between the sheath and the stem until it reaches a point near the root, at about the level of the outside soil. Here it remains stationary, gaining nutrition by absorption of the plant juices, its mouth being too weak for gnawing, and causing a gall-like enlargement or swelling at the point of attack. Growth proceeds rapidly, and in about three weeks the larva is full sized, and may be described as a thirteen segmented, semi-transparent, flattened ovate maggot, measuring about one by three millimeters.

"It is during this growing larval period that the harm is done. The main stem being the most developed, it is generally the one upon which the majority of the eggs are deposited, and accordingly, is usually the first to show attack. The immediate effect is often to produce an abnormally dark green color which gives the plants temporarily a very thrifty appearance. This, however, gives way to a brownish, then a yellowish color, and finally the blade shrivels and dies. When sufficient moisture is present and the plant is not too badly infested, it sends out lateral tillers abundantly, and these often develop into strong stalks, thus making possible a partial crop if the spring brood is successfully overcome. Infested plants may be recognized by their darker color, more bunchy appearance, lack of stem, shorter, broader, and more upright blades, and the lack of the tubular young central leaf, this failing to develop.

"Once full grown, the larva contracts, leaving its outer skin to form a hard brown shell or puparium, which is commonly known as the 'flaxseed,' and this stage is called the 'flaxseed stage.' It is in this stage that the insect passes the winter, safely imbedded among the roots of the wheat, and any condition which would be severe enough to destroy it would destroy the plant as well. While enclosed within this 'flaxseed' or larval skin, the insect turns from its head downward position which has been maintained since its first ingress, to one in which the head is directed upward. In accomplishing this turning movement the 'breastbone' or sternal spatula, a small, forked process on the ventral surface between the first and second segments, is used to advantage by the larva. It then completes the transformation into the pupa.

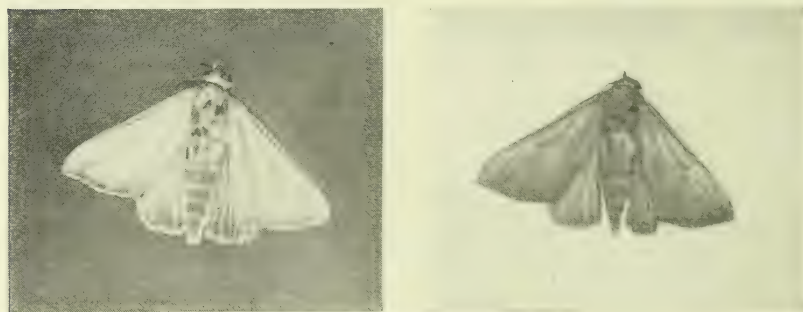
"*The Spring Brood.* During the winter the main stems partially decay and are either matted to, or in part covered by earth, or else entirely concealed by the fresh and uninfested green tillers, so that fields which easily revealed an abundance of 'flaxseed' in

the preceding fall, in the spring show them only after careful search, hence it is often supposed that the flies have been in some way destroyed. Needless to say, this condition is only apparent. About the first week in April the flies begin to emerge in southeastern Nebraska and continue to do so gradually more northward and westward until the whole of their range is covered. They do not all emerge at once, but gradually increase in numbers, reaching their maximum about two weeks after the date of first emergence, and the last ones do not appear until the first week of May or possibly even later. The males always emerge first and greatly predominate in numbers for the first day or two, after which the females begin to appear in force.

"In emerging, the pupa simply forces off the upper end of the 'flaxseed' and makes its way out, pushing along under the enveloping sheath or biting through it with its hardened jaws until it is exposed. At first its color is pure white, but later this changes to a pinkish. Having found a point of egress, the thin pupal skin splits and the adult fly laboriously extricates itself. As a rule the fly does not travel far in the spring brood, but tends to reattack the plants in the same field from which it has emerged."

The Cotton Worm Moth. (Alabama argillacea.) This interesting insect is a pest of the cotton fields of the South, and it is a rare occasion when it advances to our colder Northern clime.

During the month of October large numbers of these moths

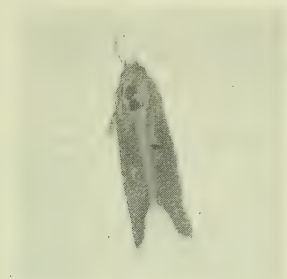


COTTON WORM MOTHS.

migrated north over Indiana, and at night they were to be found around the electric lights in almost any of our cities. In Indianapolis they occurred in such large numbers that the pavements under the lights were covered with their bodies every morning. I found them as far north as Muncie, where they were fairly common.

Many fruit growers reported that they were to be found in the orchards feeding on over-ripe peaches and other soft fruits. During the day they rested in sheltered places and were very common in the grass and among fallen leaves.

The moth is a peculiar tawny color and when at rest carries its wings folded as in the accompanying cut.

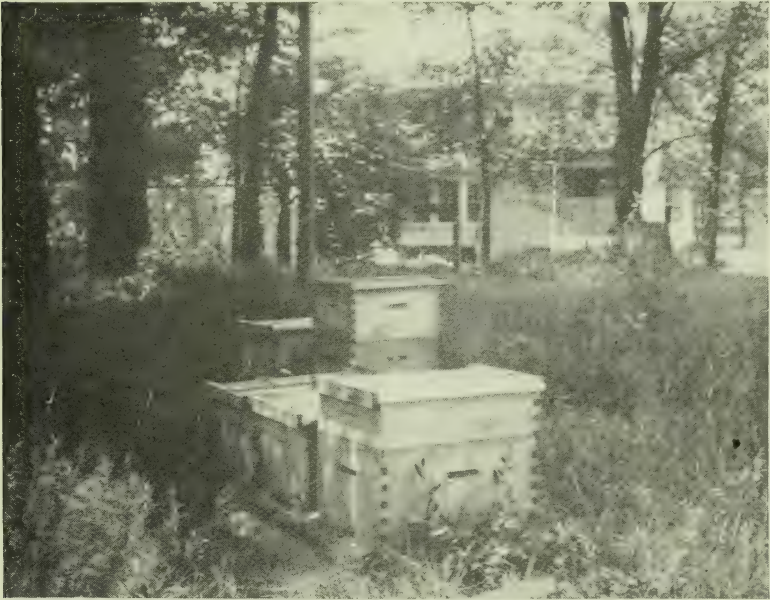


ADULT OF THE COTTON WORM.

Of course all of the moths that reached this far north will perish in the winter cold and none of them will be able to carry the race over to next year. It is obvious that a moth that appears with us only in the adult stage can be of no economic importance, as it feeds but little and then only on the juices of broken and decaying fruit.

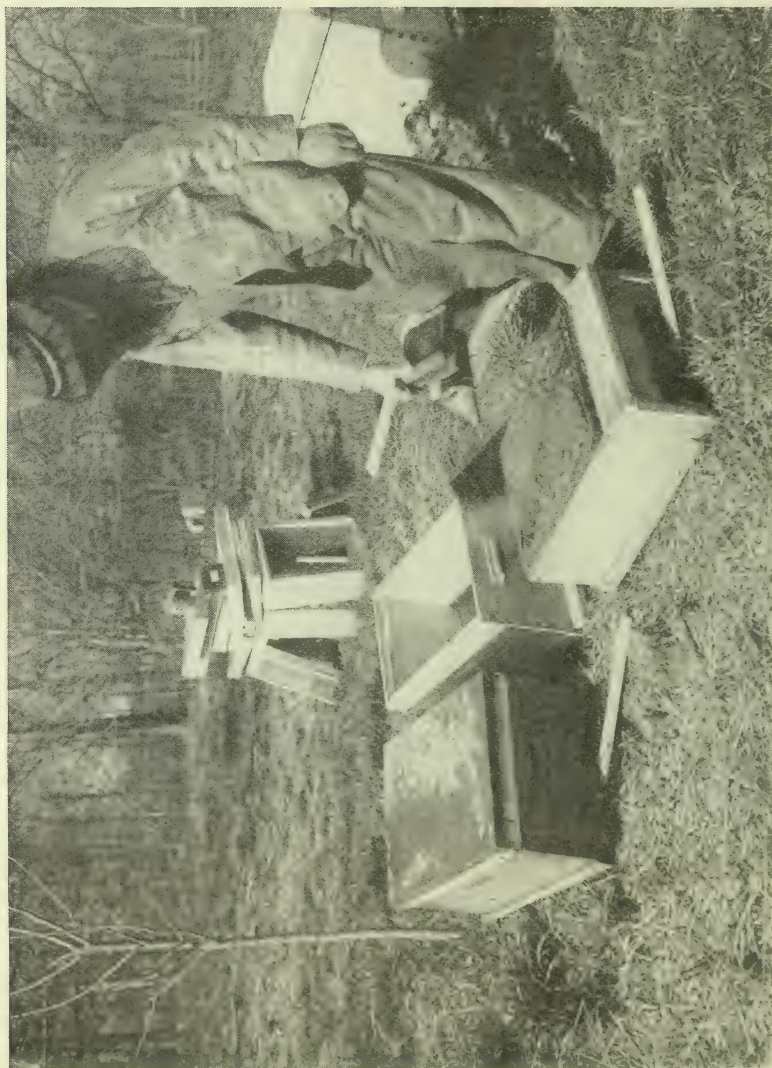
BEE KEEPING.

This ancient form of husbandry is a source of pleasure and profit to thousands of people all over Indiana, and it has been my privilege to visit many apiaries, large and small. The more I see of bee keeping the more enthusiastic I become about it and the gladder I am that I keep bees myself.



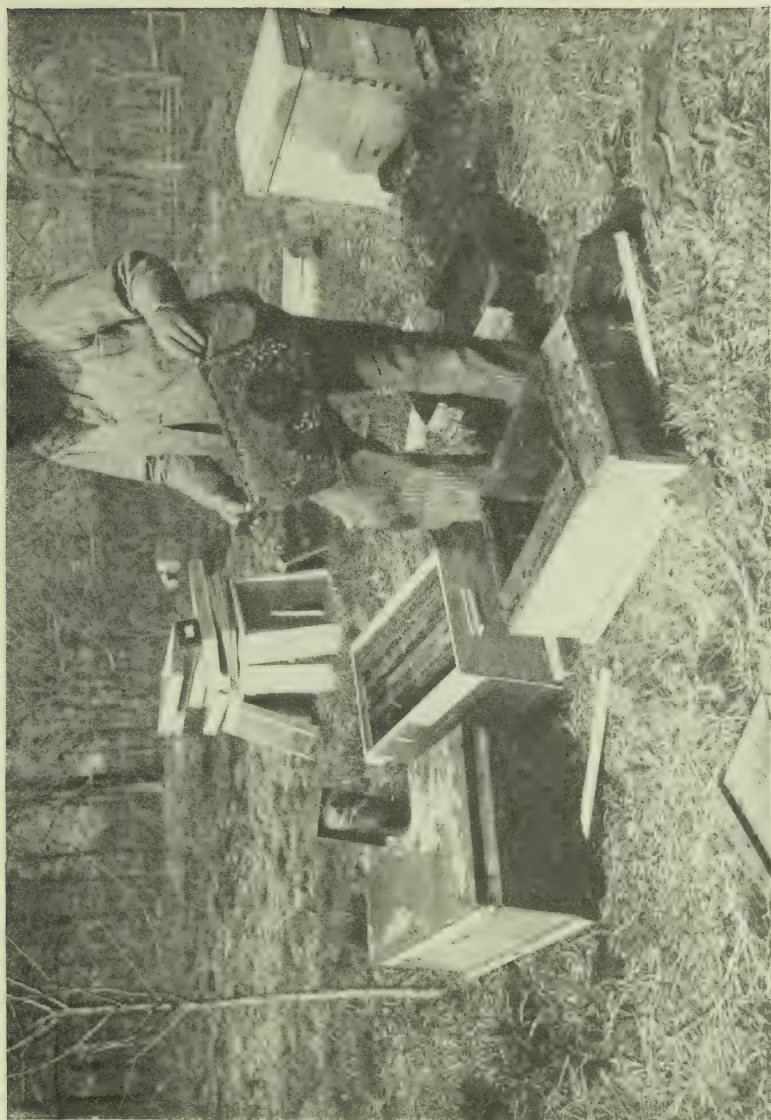
A SMALL HOME APIARY KEPT AS AN INTERESTING PHASE OF NATURE STUDY

I started as a beekeeper by purchasing a few colonies in old box hives, which I transferred to new frame hives. Bees in box hives can often be bought for a low price, and this is often a good way for the beginner to get a start. It has the one objection that the amateur apiarist is at once confronted with one of the most serious problems of bee keeping, namely, transferring. In a sense, this is a good thing, for it certainly affords an unequalled opportunity for the bees and the beekeeper to become intimately acquainted—a thing that is of more importance than may be supposed by the novice who reads these pages.



OPENING AN OLD NEGLECTED HIVE.

Use plenty of smoke as the neglected bees are liable to be cross.



THE SIMPLEST FORM OF TRANSFERRING.

The frames are lifted from the old and rotten hive bodies into the new clean hives.

It is a well-known fact that bees become acquainted with people that are frequently around them and that occasionally handle them. For this reason, some of the old-time beekeepers in nearly every locality have earned the reputation of being "bee men," men who are especially adapted for handling bees. As a matter of fact, almost anyone can become a "bee man" if he chooses to do so. The principal thing required is a certain amount of self-confidence in handling the bees, and also a certain amount of indifference to stings. The novice who starts to handle bees can expect to be stung frequently, but after one season's work in the apiary he will find that the stings are much less frequent than they were at first. This is due, probably, to a certain ease with which the beekeeper learns to handle his bees and to a certainty which he acquires in manipulating the hives. Any uncertainty on the part of the operator is quickly noticed by the bees and they at once take advantage of it to attack whom they regard as an intruder. For the benefit of the beginner who may perhaps buy his bees, as I did to start with, in old box hives or crude home-made hives of some sort, I will give a brief account of the methods employed in transferring the bees from such hives into new, modern hives.

TRANSFERRING.

The new hive should be placed in the exact position of the old hive, which has been set aside for the purpose. Thoroughly smoke the bees at the entrance of the old hive, and if it is a box which can be opened without any great difficulty, the lid should be pryed off and the bees thoroughly smoked from above. Give them a few minutes in which to fill up with honey, as this makes them very much easier to handle.

In case the old hive is what is called a box hive and does not have movable frames it will be necessary to cut out the brood combs and fit them carefully in the frames in the new hive. After removing a single brood comb from the old hive it should be carefully brushed to remove any adhering bees and then should be laid on a soft pad of old cloth. In this way the young brood will not be injured.

Now lay one of the new frames from the new hive down on the brood comb and carefully cut the comb so as to fit the frame just as nearly as possible. After fitting the comb into the frame a piece of ordinary cotton twine should be wrapped around the frame so as to hold the comb in place. In case a close fit has been

made it may not be necessary to do this. The frame is now ready to be placed in the new hive. Each comb should be dealt with in the same manner, and in case there are not enough combs to fill all of the frames in the hive the remaining frames should be filled with whole sheets of foundation and be placed alongside of the frames containing the brood combs.

In case this work is done early in the spring all of the brood combs should be placed in the new hive close together, but if it is done later in the year, after the weather is warm, it is a good idea to place the frames containing the foundation between the frames containing the brood combs. In this way they will be built up quicker and a little more uniformly.

Care should be exercised to see that the old queen is caught and placed in the new hive. In case the old hive is a home-made box hive this is not always easily done. Very often the queen will retire to some secluded portion of the box and hide in a crack or corner and be rather difficult to find. In such a case the queen must be picked up with the fingers and placed on one of the new brood combs.

There is some difference of opinion as to the best season of the year for transferring bees. As a rule the work should be done as early in the season as possible, for at that time of the year there are fewer bees in the hive and they more readily accept new conditions, in addition to being much more easily handled. Perhaps the best time of year for this work is during the period of the fruit bloom in the spring, for at this season the bees are few in numbers and are energetically at work gathering nectar from the fruit bloom. The fact that they are getting something from the field will prevent robbing, which would undoubtedly occur if the transferring was attempted during a season when there was no honey flow of any sort.

In case it is necessary to transfer the bees during a season of no honey flow it will be well to carry on the work under some sort of screen or shelter. A tent is manufactured from mosquito netting that is very convenient for this work and it costs but little. A homemade tent would, of course, answer fully as well.

All fragments of old comb should be gathered up and rendered into wax immediately. No rubbish of this sort should be permitted to remain around the beeyard, as it will very often lead to the bees contracting the robbing habit, and as a result the bees will be cross throughout the season. The old hives can often be used advantageously as hive stands for the new hives; though, if

they are in a very badly dilapidated condition, probably the best disposition which can be made of them is to use them for kindling wood or burn them on the spot.

Sometimes it is possible to buy bees in old hives that contain standard frames. In such cases it is only necessary to lift the frames out of the old boxes and place them in the new hive bodies. In this way all cutting of frames and any loss of brood or honey



• A NEGLECTED APIARY.

is avoided. The entire operation is rendered very much simpler and the bees are not disturbed any more than they would be in a casual examination of the brood chamber later in the season.

The same precautions, however, are to be used in securing the queen, because the queen in a colony that is not accustomed to being examined is often very shy and inclined to hide at the first disturbance.

STARTING A NEW APIARY.

After having successfully kept a few colonies of bees I decided to branch out as a more extensive apiculturist. I studied the advertisements in the bee-keeping journals and in the local papers and learned of a number of apiaries that were for sale at various

prices. I finally located three beeyards of various sizes—one located at Terre Haute, Ind.; another at Ben Davis, and a third near Riverside Park, northwest of Indianapolis.

All of the bees in these beeyards were examined and found to be in an apparently healthy condition and were purchased at prices ranging from \$2 per colony for the Terre Haute bees to \$4 per colony for the bees at Riverside Park. The difference in price



ANOTHER VIEW OF THE NEGLECTED APIARY.

This kind of bee keeping represents a loss.

was due partly to the fact that the Terre Haute bees were of much poorer quality, the hives were all very old and dilapidated, and they also had to be transported farther than any of the others.

I found that the first problem that I had to meet was one of transportation, but I finally overcame this difficulty by chartering an interurban car to bring the bees from Terre Haute to Broad Ripple, having determined to locate the apiary about a mile north of Broad Ripple.

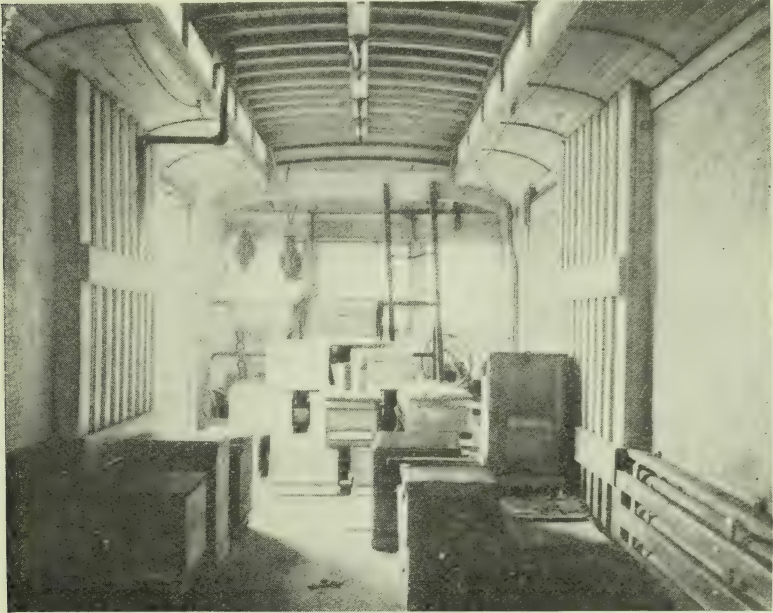
On a cold, raw day, early in April, I took an assistant and went to Terre Haute to prepare the bees at that place for shipment. Nearly all of the hives were in a badly dilapidated condition, very old and very rotten. In many cases the bottom boards had completely rotted off and some of the hives were resting di-

rectly on the ground. In others the covers were entirely gone and the bees were protected only by scraps of wood and sheet-iron that had been laid loosely on top of the colonies. The surprise to me was that bees could exist in such dilapidated hives, but they were unquestionably in good physical condition at the time that they were bought. Owing to the character of the hives it was necessary to enclose the entire bottom with screen in most cases. Some of the hives were so badly rotted that it was necessary to nail screen over the top as well as the bottom, making both the top and bottom of open screen. There were forty-one colonies of bees in this lot and it is hard to realize the magnitude of our undertaking in preparing these colonies for shipment. I would never buy another lot of bees that were in such bad condition as was this particular apiary. The work which we had to do on the beehives and the difficulty which we had in transporting them fully made up for the small saving in the price of the bees.

I think I should say something about the manner in which these old hives were closed with screen. In the first place a sheet of wire screen cloth was cut just big enough to lay over the top of the hive and to fold down nicely on all sides, leaving a margin of about an inch. This was placed over the hive after the cover was removed or after the bottom part was removed, as the case might be, and was then secured to the hive by strips of lath nailed at the sides. The corners had to be neatly and closely folded in order to prevent the possibility of the bees getting out at the corner folds. In this particular instance the work was done during a rather cold afternoon and the bees did not cause us very much trouble. They were not flying when we started to work about 3 o'clock and made but few attempts to fly during the afternoon. We had no difficulty whatever in controlling them with the use of smoke, which we applied liberally.

We engaged a farmer living in the neighborhood to haul the bees from the apiary to the traction station and directed him to be at the apiary to move the bees at 6 o'clock. He arrived promptly, but we were forced to disappoint him, as our work was but little more than half done at that time. We were compelled to work exceedingly fast in order to complete the work, and finally closed the last colony at 8 o'clock. At that time we ceased work, owing to the fact that the supply of screen wire had run out, and we were compelled to leave three colonies of bees at the old apiary, making in all thirty-seven colonies that we brought on to Indianapolis. The three colonies that were left were afterwards traded

to the man who hauled the bees, in exchange for his labor in doing so. He had already agreed to haul the bees for \$1.50, but we had kept him waiting so long and he was so patient that I did not regret letting him have the bees, although they represented a much larger money value than he had asked for his work in hauling them. If I had not let him have them they would have been a clear loss, as we could not take them along. It would not have paid to have gone back after them on a second trip.



BEES ON BOARD CARS.

We finally got the bees to the traction freight house about 10 o'clock at night. This was, of course, after hours for receiving freight, but I had previously made arrangements with the manager of the freight house so that we had no difficulty in getting the bees into the freight shed, where they were left for the night.

Early the next morning my assistant went on to Ben Davis, where we had purchased twenty more colonies of bees. These bees were in far better condition and in better hives, so that it was not such a big job to prepare them for shipment. I stayed at Terre Haute and loaded the special car at 7 o'clock the next morning and accompanied the car on to Ben Davis, where we picked up the twenty colonies of bees that had been prepared for shipment that morning. In shipping the bees in the interurban car we

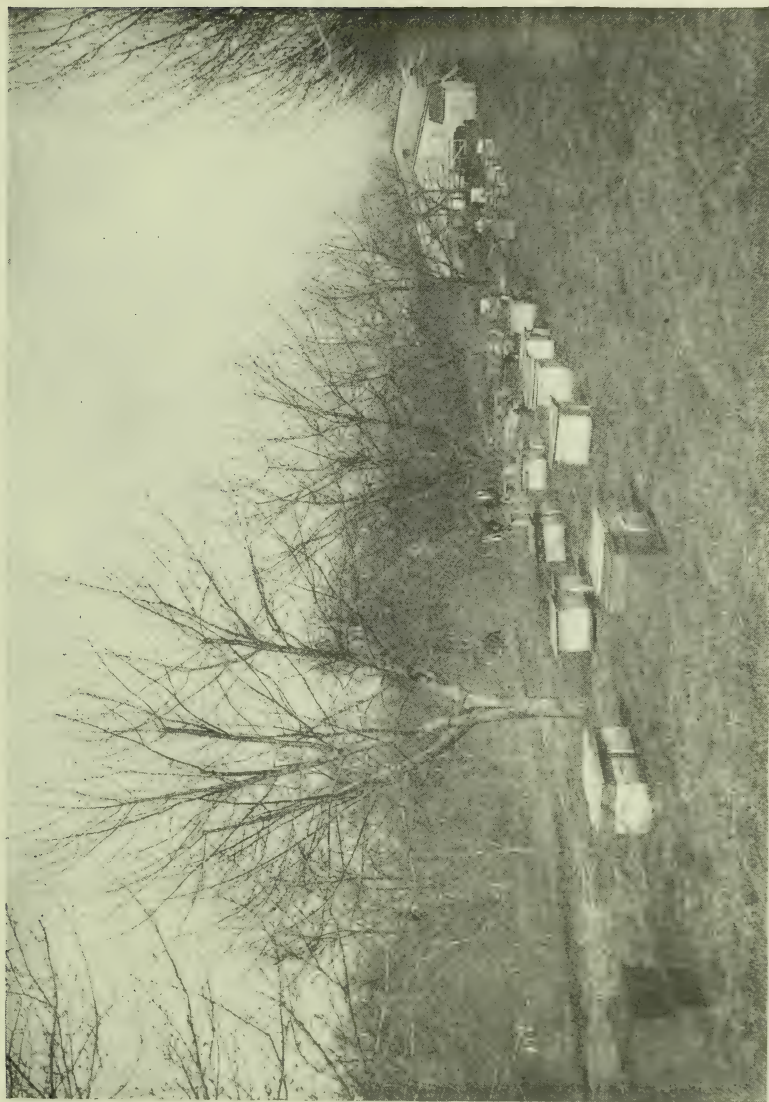
avoided all necessity for bracing the hives in the car, as there was no bumping or jolting such as the bees would get on a steam road. While I have never shipped any bees on steam cars, I understand that it is necessary to brace the hives so that there will be no shifting of the cargo when the cars are bumped in switching. The only precaution which we used in loading the cars at Terre Haute and Ben Davis was to see that the hives were placed in the car with the brood frames running the same way as the car. I doubt very much whether this precaution was necessary in this case, as the car came through so smoothly and with so little jolting that no possible injury could have occurred to the combs even if they had been swung crosswise of the car.



UNLOADING BEES FROM CAR.

Most railroad companies require that in shipping bees an attendant must accompany the shipment. This is a wise precaution and I believe should be required of all beekeepers who ship stock any distance. Even with the care which we used at Terre Haute we found that one or two colonies developed a leak during the morning and these leaks had to be stopped immediately. This was very readily accomplished by the use of a little cotton which was carried for the purpose and which was simply crowded into the crack through which the bees had found egress.

I observed one rather interesting point while riding with the bees from Terre Haute to Ben Davis. When the few bees escaped in the leak mentioned above I watched their behavior in the car



THE NEGLECTED APIARY AS IT LOOKED AFTER IT WAS MOVED TO ITS NEW LOCATION.

and was surprised to find that they had no difficulty in flying out of the car door and flying right ahead of the car. This was at a time when the car was going probably from thirty-five to forty miles per hour. This shows that the flight of the bee must considerably exceed the speed of the average train. We had no further difficulties with the bees and unloaded them uneventfully at the station at Broad Ripple. From there they were hauled to a farm about three-fourths of a mile from the station at that town. We placed them roughly in rows in the northwest corner of an apple and pear orchard and at once opened the entrance of the hives so that the bees could fly out. This was about 5 o'clock in the evening, and the bees had been confined for about twenty-four hours. They were not particularly cross, however, and we had no difficulty in opening the colonies.

By some oversight one of the colonies was not opened on the first evening, and by the same oversight it was neglected for more than a week, when I chanced to see that there were no bees flying out of that particular hive. The hive was an old box affair with the entrance located on the under side in a place that very readily escaped ordinary attention. I expected to find that the bees in this colony were in bad shape, if not dead, but to my very great surprise they behaved nicely when I opened the entrance. They were not cross, and very few of them were dead. It would be interesting to know just how long a colony of bees could be closed up without suffering some definite injury.

Twenty more colonies of bees were purchased at a point near Riverside Park and were transferred to the location of the apiary in a large farm wagon. These bees were in better hives than those bought at Ben Davis or Terre Haute and we paid more for them. They cost on an average of \$4 per colony. Some of the colonies were in hives sufficiently good that they did not need to be transferred. Most of them, however, were transferred to new hives. These made a total of seventy-seven colonies located at the new apiary. All of these bees had to be transferred into new hives in preparation for the coming season. Practically all of the colonies, except a few bought at Terre Haute, were in hives containing standard size brood frames, so that the work of transferring consisted merely in lifting the frames out of the old boxes and placing them in the new hive bodies. In a few cases the colonies brought from Terre Haute were in old box hives and it was necessary to demolish the hives and cut the brood combs to fit the new frames, and this made considerable more work. For this reason

I would never again buy any considerable quantity of bees in box hives. It is also difficult to determine the condition of the bees unless they are on standard frames.

Practically all these bees, especially those brought from Terre Haute, were well supplied with stores and had gone through the winter in splendid shape. They were all raising brood at the time that they were purchased and the honey flow from the fruit bloom was unusually large. The indications were for a splendid season



PLANT LICE, THE SOURCE OF HONEY DEW.

and the bees were encouraged to build up as strong colonies as possible. It so happened, however, that the weather was unfavorable for the beekeepers during this past season, and our entire prospects were blasted by the extreme hot weather which started at the beginning of the honey flow on the white clover. I never knew the bees to be in such strong condition as they were at the beginning of the clover flow this year, but they practically had nothing to work on.

For the encouragement of the beginner in bee-keeping I wish that I might tell of having harvested a record crop from these-

bees that were purchased in old, dilapidated hives and transferred to new workable hives. Unfortunately, however, I cannot make any such record and tell the truth. And as a document of this sort should be primarily truthful, I must simply say that the honey crop for the season was almost a total failure. At the end of the honey flow I had to my credit barely one pound of surplus honey per colony; some colonies having yielded as high as fifteen pounds and many others yielded nothing at all. In a favorable season an apiary of this size could very readily be managed so as to yield an average of 100 pounds per colony. The experienced beekeeper will realize what an exceedingly poor season we had when I say that the bees made practically no effort to swarm and that the only swarms which issued were two that escaped during the fruit bloom. After these two early swarms there were no more attempts at swarming on the part of any of the colonies in the apiary. This, of course, reduced the work of looking after the apiary to a very material extent. This is a brief record of the starting of what I intended to be an experimental apiary. The first year's work has been a failure through no fault of the operator, and while not a great deal has been learned the season has been rich in experience.

One of the interesting things observed early in the season was that honey dew is not necessarily of dark color. There was a considerable quantity of very light honey dew stored early in the season and it very closely resembled the honey produced from the white clover. Honey dew, it should be understood, is not strictly a bee product, but is gathered by the bees and stored by them. It is, in fact, a secretion from the plant lice and it is not salable as honey under the pure food law. It must be labeled as honey dew and sold as such. Under the law honey is defined as being a product made by the bees from the nectar of flowers, and the pure food chemists are enabled by their scientific instruments to determine whether a sample of honey contains honey dew or whether or not it contains such substances as cane sugar or glucose.

The wise beekeeper, however, does not attempt to adulterate his product with any of these preparations for several reasons. In the first place they are not honey and his product would not gain the same reputation that it would if marketed as a strictly pure preparation. In the second place it does not pay from the money standpoint to adulterate honey. This, I believe, has been demonstrated repeatedly by other writers, so that I need not go into the actual figures in the matter. In the third place there is too great

a certainty of prosecution after the detection is made by the health authorities. The wise beekeeper will stick to the pure product and will endeavor to build up a reputation for selling only strictly pure and honest goods, and will, in the long run, increase his market and ultimately increase the price which he receives for his goods.

During the season I had an opportunity to visit a number of very interesting apiaries in different parts of the State. One of



APIARY OF MASON NIBLACK.

the most interesting of these is the apiary of F. B. Cavanaugh at Hebron, Ind. Mr. Cavanaugh has about six hundred colonies of bees and he operates his apiary not only for extracted honey, but for comb honey as well. He has an almost ideal plant, and has probably the largest apiary in the State. Mr. Cavanaugh is thoroughly modern in his ideas and employs a power machine for extracting his honey and also uses a large automobile in going from one apiary to another. He has several outyards which he operates in this way. He also has a convenient truck which he can attach on the back of his automobile, and in that way can haul large loads of honey or bees in a very short time.

Another very interesting little apiary which I had the pleasure of visiting was owned by Mr. Mason J. Niblack of Vincennes, Ind.

Mr. Niblack's apiary is located in a beautiful and somewhat romantic spot southwest of the city. As will be seen from the accompanying illustration, Mr. Niblack has only a small number of colonies, which he operates because of the pleasure he derives from handling the bees. He prefers the ten-frame hive and operates his apiary for comb honey exclusively. The spirit of commercialism does not enter into Mr. Niblack's work. As he says, he keeps

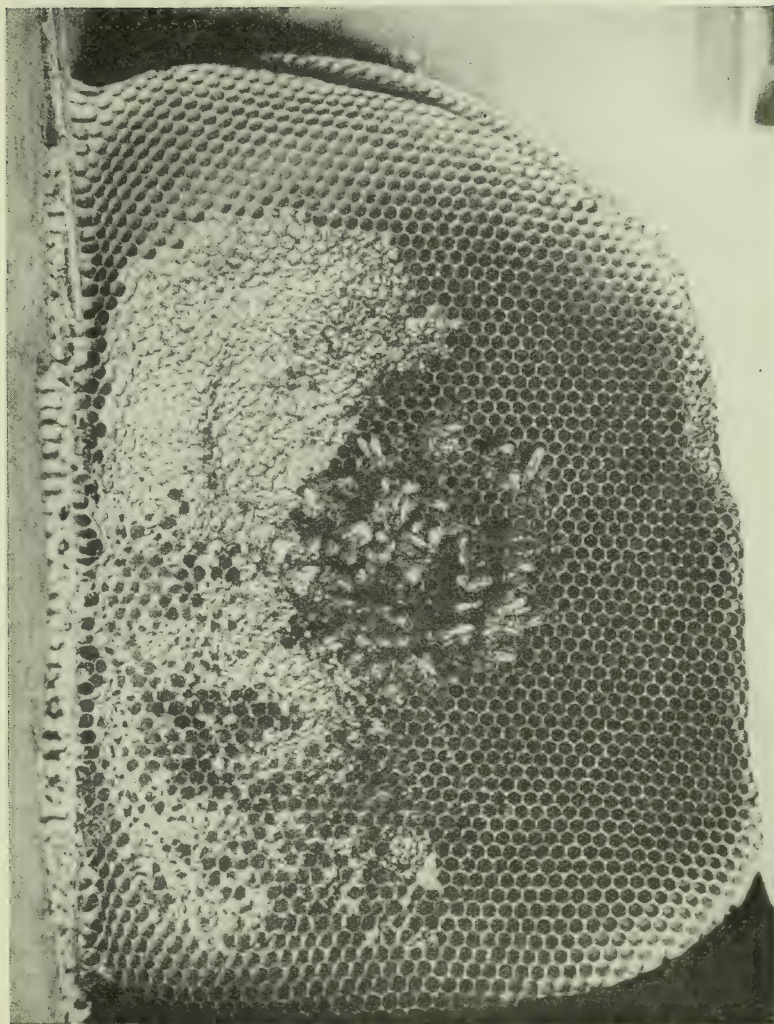


MAKESHIFT HIVES.

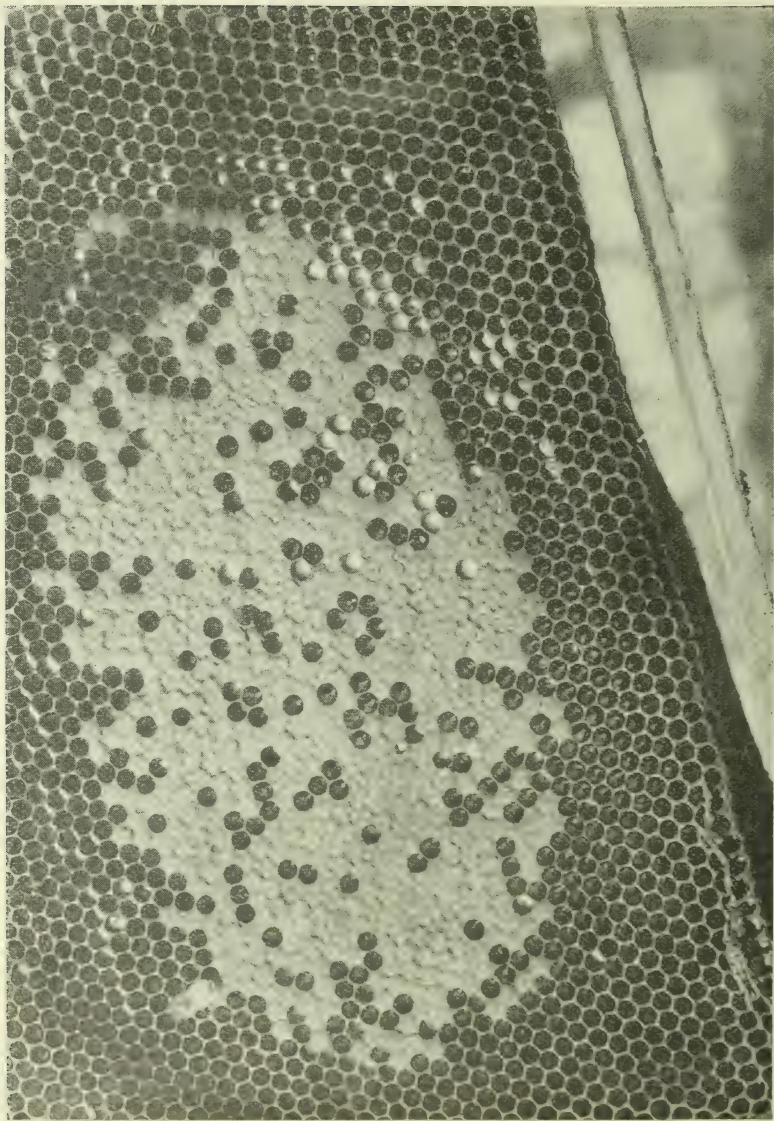
The owner used what he had at hand at swarming time. Good hives should be ordered in advance and then the beekeeper will not have to transfer the bees from these crude hives.

the bees because he likes to eat the honey, and this is the motive that prompts a great many beekeepers over the State of Indiana to run the risk of stings in order to secure their choice sweet. Mr. Niblack, however, is thoroughly scientific in his work and gets a great deal of pleasure out of handling his bees.

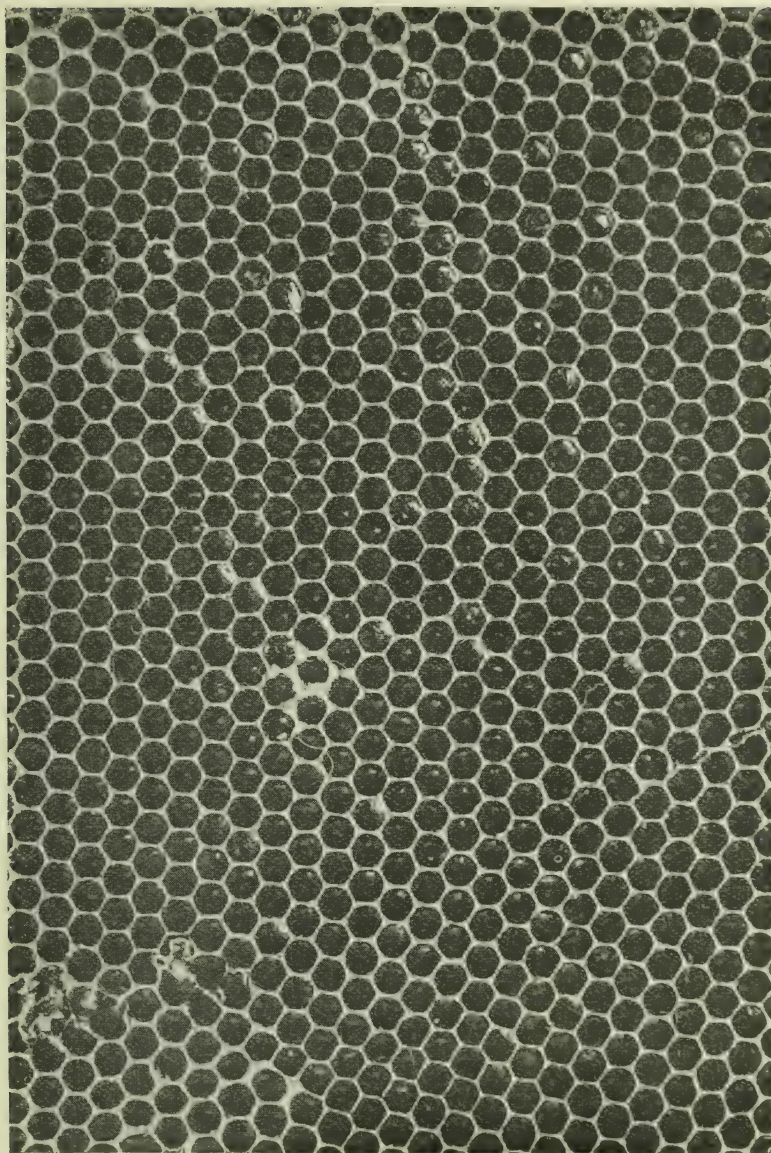
I saw another interesting little apiary, of which I will include a photograph, showing a very unique sort of homemade hive. The hives, however, can scarcely be called homemade, as they were bought already made, being simply disused nail kegs, and the supers consist of an empty candy pail turned over the nail keg. To my very great surprise, the bees in these makeshift hives were in a healthy condition and had actually stored some surplus honey. The owner realized that the hives were not the best thing for his bees and has already prepared to transfer them to good new hives.



STARVED TO DEATH WITH HONEY IN REACH.

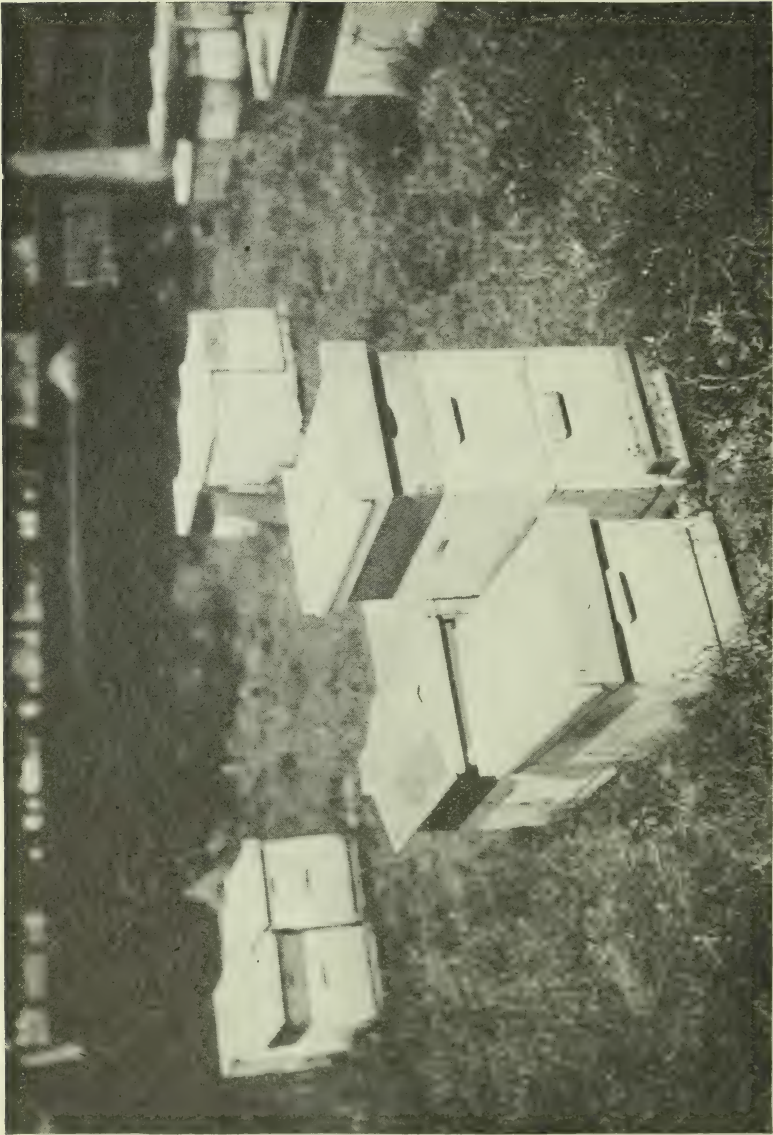


THIS REMARKABLE PHOTOGRAPH SHOWS A COMPLETE LIFE HISTORY OF THE HONEY BEE FROM THE EGG TO THE ADULT.



A FRAME SHOWING FOUL BROOD.

The diseased matter is in the form of small scales that adhere to the inner side of the cells.

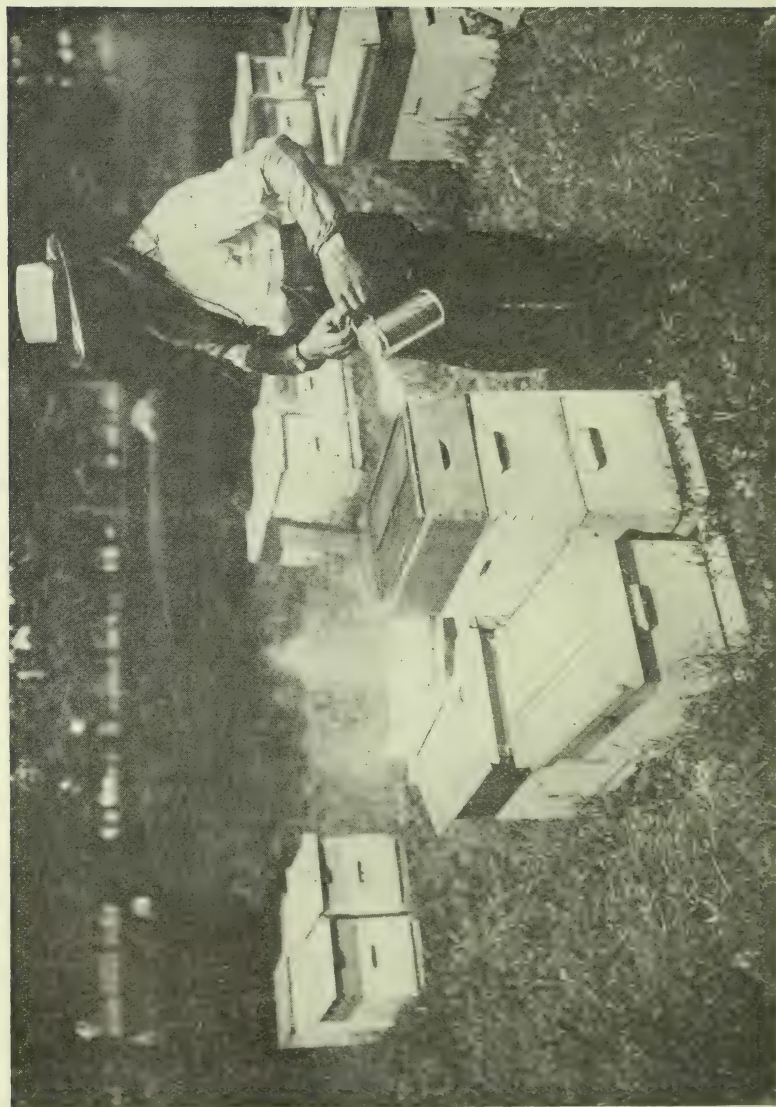


HIVES IN A MODEL APIARY.

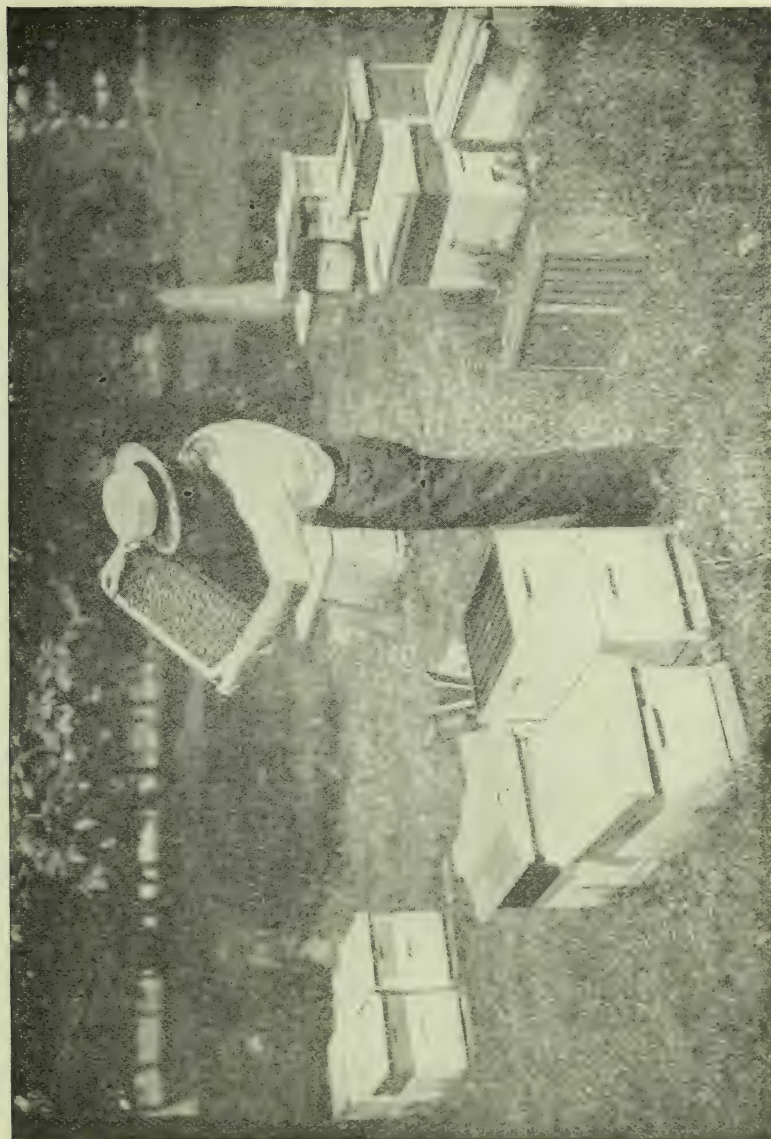
THE TREATMENT OF FOUL BROOD DISEASES OF BEES.

In my second annual report, Mr. George S. Demuth gave a very excellent account of the treatment of foul brood. This report is now out of print, but the demand for the information not only continues but increases with each succeeding season. Accordingly, I will include in this report the following brief account of a simplified method of handling foul brood.

At the time of the publication of the second annual report the recognized treatment of foul brood consisted of what was called the double-shaking treatment; that is, the bees were shaken from the diseased combs into clean, new hives and were allowed to build comb for four days and were then shaken the second time into hives containing full sheets of foundation. This second shaking is now done away with. The diseased colony is set aside and a clean, new hive is set in its place. This new hive must have the frames fitted with one inch strips of foundation; never with full sheets. The frames from the diseased colony should be removed one at a time and should be carefully examined as they are removed, to find the queen. The queen should be handled carefully and should not be brushed off in the rough fashion in which the worker bees are handled. I believe that it is better practice to brush the bees off the combs than it is to shake them. Very often in shaking the bees off, some drops of honey will be shaken off with them, and it is desired that they carry into their new hive just as little of their old honey as possible. A very good brush for this purpose is made from some stiff grass, simply gathered into a small bunch and afterwards burned. It is almost impossible to disinfect a bee brush satisfactorily, so that a makeshift brush consisting of a bunch of grass is far more satisfactory. The combs should be taken out and the bees brushed from them into the new hive, and as soon as they are cleared of bees they should be placed in a tub or other receptacle containing water, so as to prevent the bees gathering on the combs and taking back any of the old honey. This placing of the brushed combs in the water will also prevent bees from neighboring colonies robbing out any of the disease-infested honey. It is well, also, to do this work late in the evening, so that the bees from other colonies will be flying just as little as possible. After the bees have been brushed into the new hive it will be advisable to place a queen-excluding zinc over the front of the hive in order to prevent the queen from coming out with the swarm. In some cases the bees will attempt to swarm



OPENING THE HIVE.



LOOKING FOR FOUL BROOD.

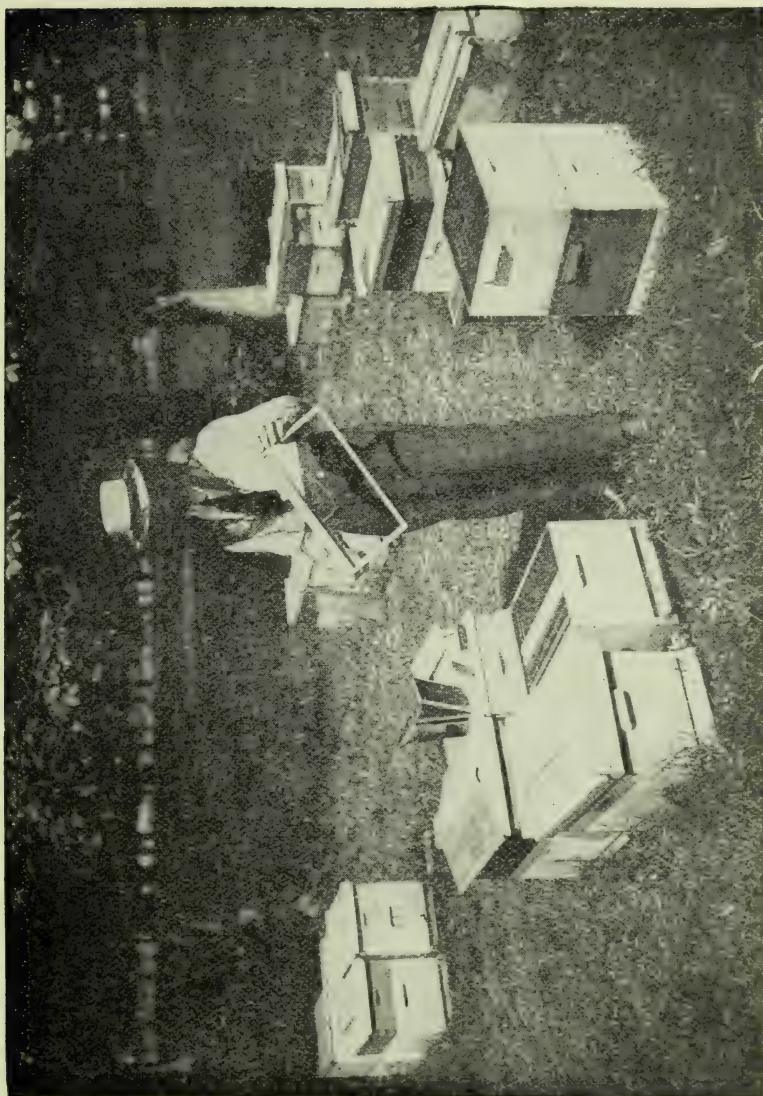
out if this is not done, although many cases have been treated without the use of any queen guard placed at the entrance. The object in shaking the bees from the old combs is to remove from the colony all possible sources of infection.

The American foul brood is known to be a bacterial disease, and it is supposed that European foul brood is of a similar nature, although this is not generally known as yet. These, in each case, attack only the brood; that is, the larva of the bee, and never the adult bee. The following extract regarding the nature of the bee diseases is taken from Dr. Phillips' Farmers' Bulletin No. 442:

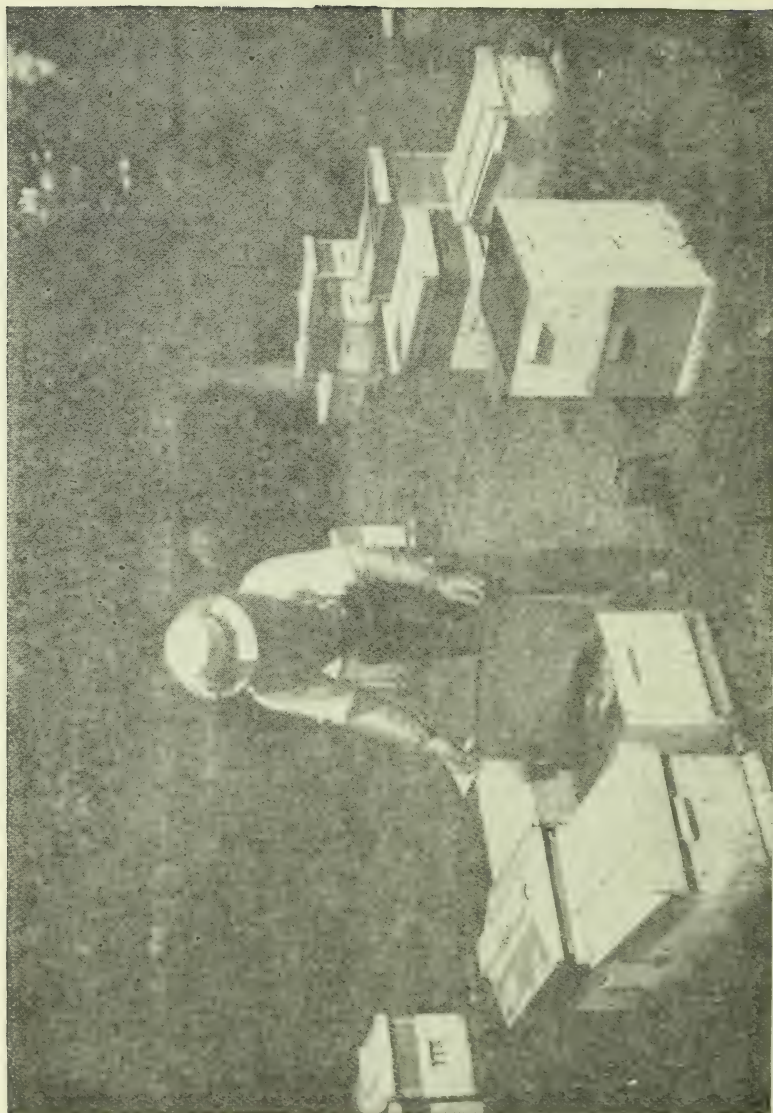
"There are two recognized infectious diseases of the brood of bees, now known as American foul brood and European foul brood. Both diseases weaken colonies by reducing the number of emerging bees needed to replace the old adult bees which die from natural or other causes. In neither case are adult bees affected, so far as known. The means used by the beekeeper in deciding which disease is present is the difference in the appearance of the larvae dead of the two diseases. That the diseases are entirely distinct cannot now be doubted, since they show certain differences in the age of the larvae affected, in their response to treatment, and in the appearance of the dead larvae. This is made still more certain by a study of the bacteria present in the dead larvae. Reports are sometimes received that a colony is infected with both diseases at the same time. While this is possible, it is not by any means the rule, and such cases are usually not authentically reported. There is no evidence that chilled or starved brood develops into an infectious disease or that dead brood favors the development of a disease.

NAMES OF THE DISEASES.

"The names, American foul brood and European foul brood, were applied to these diseases by the Bureau of Entomology of this department to clear up the confusion in names which formerly existed. By retaining the words 'foul brood' in each name the disease-inspection laws then in force could be interpreted as applying to both diseases. These names were in no way intended to designate geographical distribution, since both diseases did exist and do now exist in both Europe and America, but were chosen primarily because they were convenient and easily remembered names. Their only significance is in indicating where the diseases were first seriously investigated. It was particularly desirable to



THE OLD HIVE IS SET ASIDE AND A CLEAN ONE IN WHICH THE FRAMES ARE FITTED WITH STRIPS OF FOUNDATION IS PUT IN ITS PLACE.



THE BEES ARE SHAKEN OFF THE DISEASED FRAMES INTO THE CLEAN HIVE.

change the name of the disease now known as European foul brood, since 'black brood' entirely fails to be descriptive and is misleading."

A condition known as pickled brood sometimes exists in the apiary and very frequently leads the beekeeper to suppose that his bees are affected with some form of foul brood. This disease is not supposed to be contagious and the exact cause of it is not known at this time. One of the most characteristic features of the brood that dies under the condition known as pickled brood is that the head end of the larva always turns up, producing what is termed the "Chinaman's shoe" condition.

The following table of comparative symptoms will enable the beekeeper to determine something of the difference in bee diseases which may be present in his particular apiary:

AMERICAN FOUL BROOD.	EUROPEAN FOUL BROOD.	PICKLED BROOD.
Color at first, light chocolate.	Color at first, yellow.	Color at first, light yellow.
Darkens with age until dark brown.	Darkens with age until almost black.	Darkens to brownish color.
Dead larvæ become shapeless mass on lower side of cell.	Dead larvæ may become shapeless mass but very young larvæ may remain coiled in the bottom of the cell.	Dead larvæ usually retain shape, though swollen.
Attacks larvæ about time of capping or soon after.	Attacks larvæ before time of capping (usually.)	Attacks larvæ about time of capping.
Combs show sunken and perforated cappings; discolored.	Very seldom show sunken and perforated cappings.	Cappings may be perforated but not discolored.
Dead material is ropy. Larvæ dies down to tightly adhering scale.	Ropiness almost or entirely wanting. Dried larvæ form scales not tightly adhering to cell.	Never ropy but is watery. Usually removed.
Odor is foul, noticeable even when a few cells are diseased.	Odor not noticeable except in most advanced stages when it resembles odor of American Foul Brood.	Very slight odor.
Seldom attacks drone or queen larvæ.	Disease attacks drone and queen larvæ among the first.	
Spreads slowly.	Spreads rapidly.	Supposed not to be contagious.

INSPECTION WORK.

Bee inspection work was started in March of the present season and continued until October. A total of twenty counties was examined, with a total of 2,076 colonies inspected. Out of these colonies, 183 were found to be diseased with American foul brood, 199 with European foul brood and twenty-three with pickled brood.

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OF THE
UNIVERSITY OF ILLINOIS

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REPORT

OF THE

Trustees and Medical Superintendent

OF THE

Northern Hospital for Insane

AT LONGCLIFF

(NEAR LOGANSPORT)

FOR THE YEAR ENDING SEPTEMBER 30,
1911

TWENTY-THIRD YEAR

To the Governor

INDIANAPOLIS :

WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING
1912

THE STATE OF INDIANA,

EXECUTIVE DEPARTMENT.

DECEMBER 26, 1911.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE.

INDIANAPOLIS. December 29, 1911.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN.

Auditor of State.

JANUARY 25, 1912.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE.

Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, January 26, 1912.

L. G. ELLINGHAM.

Secretary of State.

Received the within report and delivered to the printer, January 26, 1912.

ED D. DONNELL,

Clerk Printing Board.

NORTHERN HOSPITAL FOR INSANE.

1911.

BOARD OF TRUSTEES.

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WALTER G. ZAHRT, Ft. Wayne.....	Vice-President
WARREN T. McCRAY, Kentland.....	Treasurer
M. EPSTEIN, Frankfort.....	Secretary

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MARY L. WIDDOP, M. D.....	Assistant Physician
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ELLA McCARTY.....	Assistant Clerk
ELIZABETH TERFLINGER.....	Matron

REPORT OF BOARD OF TRUSTEES.

Hon. Thomas R. Marshall, Governor of Indiana, Indianapolis, Indiana:

Dear Sir—It is with pleasure that we present this, the Twenty-third Annual Report of the Northern Hospital for Insane, together with that of the Medical Superintendent, accompanied by a full report of the operations of said hospital set forth in detail in the various statistical tables which follow.

The fiscal year just closed has been one of progress and improvement and has witnessed the completion of the pathological building, which is most satisfactory in all particulars, and is an addition to the hospital buildings in which we take much pride and which will contribute largely to the convenience and efficiency in the work of the pathological department.

We have also completed the cold storage building, which is modern in every detail and fills a long-needed want. The addition of an upper story to this building, with but little additional expense, provides a commodious, well-lighted and comfortable sewing-room, which was also badly needed. Access to this room is made easy by outside, iron stairways; motors have been attached to the sewing machines, and the usefulness of this department has been improved in all respects.

Many improvements have been made in the landscape beauty of the grounds. Both farm and garden have borne bountiful crops, and the maintenance account has thus been benefited, as well as the health and happiness of those able-bodied patients who have assisted in the work of the summer. Kind Providence has favored us with an abundant crop of small fruits, while our apple orchard has yielded over a thousand bushels of fine apples, which have been keenly enjoyed by the entire population. We especially call your attention to the results of our poultry department, which is a source of much pleasure and profit to our institution. The dairy has been maintained in its former high standard, furnishing pure, wholesome milk both to patients as well as employes.

The removal of almost two hundred patients to other institutions of the State has relieved the congestion and made the condi-

tion of the patients more comfortable, thus enabling them to receive better care.

During the past year the personnel of our board has been changed by the retirement of William A. Morris, whereby the State has lost a most valuable and able servant, whose wise and conservative counsel was fully known and appreciated by his associates. In the appointment of his successor, Moses Epstein, we find we have an associate who has entered into his new duties with such ability, enthusiasm and earnestness of purpose as will make him a most capable and efficient officer.

We are also pleased to state, and believe it but right for you to know, how highly we esteem and value the services of our Superintendent and his entire staff. His administration of the affairs of the institution is conspicuous for his devotion to the trust, and his capable, earnest, loyal and conscientious execution of his duties has endeared him to his associates and earned for him the confidence and respect of all with whom he comes in contact. He has at all times given us his hearty support in guarding the State's treasury wherever possible, consistent with the high standard of efficiency which we under all circumstances endeavor to maintain.

We feel the past year has been one of the best in the history of the institution, and it is our hope that the appreciation of our trust may be enlarged and that we may grow more and more capable of discharging the duties and responsibilities of our position.

CHAS. W. SLICK.

MOSES EPSTEIN.

WARREN T. McCRAY.

WALTER G. ZAHRT.

LOGANSPOUT, INDIANA, December 1, 1911.

MEDICAL TABLES

WITH

Report of Medical Superintendent

OF THE

NORTHERN HOSPITAL FOR INSANE

1911

REPORT OF MEDICAL SUPERINTENDENT.

To the Board of Trustees:

Gentlemen—I have the honor to present herewith the Twenty-third Annual Report of the Northern Hospital for Insane for the fiscal year ending September 30, 1911:

MEDICAL HISTORY.

MOVEMENT OF POPULATION.

	Men.	Women.	Total.
Enrolled October 1, 1910.....	566	539	1,105
Admitted from October 1, 1910, to September 30, 1911	127	87	214
Discharged from October 1, 1910, to September 30, 1911	88	82	170
Recovered	20	15	35
Improved	12	9	21
*Unimproved	53	58	111
Not insane	3	0	3
Died during the year	56	33	89
Furloughed during the year	87	94	181
Returned from furlough or discharged from furlough during the year	72	89	161
Total enrollment at close of year	549	511	1,060
Average number resident	510.227	467.427	977.654

At the beginning of the year October 1, 1910, the total enrollment was 1,105; at the close, September 30, 1911, 1,116, an increase of 11. The number present at the beginning of the year was 1,001; at the close, 985, a decrease of 16. The total number under treatment during the year was 1,317; for the previous year, 1,333, a decrease of 15. The percentage of recoveries, based on the total number under treatment, is 3 per cent. The percentage of deaths, computed on the same basis, is 6 per cent. The percentage of recoveries, based on the number of admissions, is 16 per cent. The percentage of deaths, based on the number admitted, is 41 per cent.

The action of the Governor in redistricting the State—removing from the district of the Northern Hospital six counties and thereby

* Eighty-nine transferred to the Eastern Hospital for Insane, Richmond, on August 4, in compliance with an order from the Governor, in which five counties from the Northern Hospital were transferred to that of the Eastern.

decreasing the number of counties from which patients are received, from 22 to 16, and the transfer of 89 patients to the Eastern Hospital—has made it possible to receive all suspended cases, and has also made it possible to abandon the camp, a temporary wooden structure, without toilet or bath accommodations, which has housed 30 patients for a period of about three years. During the summer months the camp is a desirable and pleasant residence, but because of the lack of bathing and toilet facilities, it is not agreeable in winter, and for this reason it has been abandoned until spring, or until such time as its occupancy again becomes necessary because of overcrowding, which at the present rate of increase, seems not far distant.

On July 1, Dr. Lorne Yule resigned his position as assistant physician to take up general practice. Dr. Yule's resignation and withdrawal from the staff was a distinct loss to the institution and his action was regretted by all with whom he had been associated. On August 1, Dr. C. M. Sautter was appointed junior assistant in the department for men, to fill the vacancy left by Dr. Yule; and on June 17, Dr. Frank L. Washburn resigned his position as pharmacist and pathologist to assume more lucrative duties. Aside from these changes the staff has remained intact, and it gives me pleasure to testify to the excellence of their work and their close attention to duty during the year.

Aside from the accidental death of a patient, who in fording the Wabash River in an attempt to elope, was seized with an epileptic attack and drowned, there were no serious accidents. The general health of the hospital population throughout the year has been excellent, notwithstanding the rather heavy death rate, which in practically all cases was due to chronic, unavoidable cause.

The work for which there was specific appropriations holding over until the year 1911 has been completed, namely, pathological building, closet annexes and cold store. Small sums reverted in the cold store and pathological building appropriations and a balance of \$1,016.80 was turned back from the closet annex appropriation. The completion and occupancy of the pathological building has made possible the removal of laboratory, electrical and dispensary equipment from offices and basement of the Administration building, allowing a more satisfactory arrangement of business and medical offices. Much of the laboratory apparatus is obsolete and the entire equipment, both chemical and microscopical, is incomplete. The pathological building contains a complete dental equipment, and, during the summer just past, an interne attended to the

dental needs of as many of the patients as was possible. It is the intention to continue this service each summer by securing a senior student from the dental college to reside at the hospital and practice his profession during his summer vacation. This is done at small cost and accomplishes much good.

The unsafe condition of the Assembly Hall for dancing, as indicated in a report made by Foltz & Parker on February 4, 1910, has limited the amusements which could be provided for patients to theatricals and moving picture entertainments, and during the summer season to outdoor games and sports. The faulty construction of the above named building is a source of anxiety, and makes impossible the most popular form of amusement which can be furnished patients in an institution, namely, dancing. Unfortunately alterations or improvements which would make the building reasonably safe are not possible, and it is therefore thought that it should be replaced in the near future. A full report of the condition of the building will be submitted to the next legislative investigating committee with a recommendation that it be replaced by a new structure.

In conclusion I would signify my full appreciation of the support and encouragement given by your honorable board in our efforts to maintain a high standard of excellence and efficiency in all departments of the institution, and would tender to all officers and employes who have been loyal and attentive to duty my sincere thanks.

I beg to remain your obedient servant,

FRED W. TERFLINGER,

Medical Superintendent.

TABLE I.
Movement of Population from Opening of Institution.

YEAR.	Received.		DISCHARGED.						Died.		Enrolled at Close of Year.		Temporarily Absent.		Daily Average Attendance.		Total.		
	M.	F.	Recovered.		Improved.		Unimproved.		Not Insane.		M.	F.	M.	F.	M.	F.		M.	F.
			M.	F.	M.	F.	M.	F.	M.	F.									
888	189	120	3	3	1	2	3	5-1	8	176	116	151.1	88.6	239.7	
889	107	112	42	30	11	11	3	2	21	13	192	177	194.25	172.74	366.99	
890	†117-20	67	29	30	7	6	†2-71	†1-73	*1	11	13	207	120	206.02	171.27	377.29	
891	114	138	32	30	21	6	†2-18	†2-8	*3	24	12	217	197	209.96	191.43	401.39	
892	101	76	46	41	23	7	1	1	1	24	12	222	211	220.94	204.54	425.08	
893	47	70	16	30	13	10	1	1	1	17	20	220	220	224.55	224.23	448.78	
894	115	85	28	23	12	17	3	5	1	17	21	220	237	256.07	234.63	490.70	
895	130	85	46	28	8	3	21	23	270	275	270.56	246.33	516.89	
896	116	96	30	28	9	6	11	6	3	33	15	313	305	284.44	269.31	553.75	
897	107	84	32	25	26	10	5	5	4	33	14	309	323	296.93	288.58	585.51	
898	108	57	22	18	35	18	2	5	7	39	15	312	324	300.16	303.51	603.67	
899	94	58	12	18	23	12	6	5	3	40	29	322	318	302.90	303.02	606.92	
900	109	74	9	7	10	7	40	19	376	355	311.97	308.85	620.82	
901	129	104	40	13	13	8	6	5	2	33	25	413	408	375.09	378.82	754.08	
902	122	81	30	36	30	32	2	2	3	33	26	433	391	395.26	378.04	791.37	
903	142	105	23	16	9	14	2	2	3	42	30	496	433	413.33	398.28	834.88	
904	130	122	31	27	42	20	3	5	2	62	40	486	460	436.60	398.28	834.88	
905	137	110	30	26	25	39	12	4	7	59	40	491	461	439.227	413.183	852.410	
906	83	80	6	10	48	35	2	1	1	35	44	482	453	442.810	405.799	848.609	
907	95	85	18	16	19	12	4	2	2	59	40	494	475	448.823	410.230	859.053	
908	166	107	22	18	28	11	10	4	3	42	32	494	475	448.823	410.230	859.053	
909	185	127	22	18	28	11	10	4	3	51	41	552	501	501.91	482.234	994.145	
910	128	121	37	21	26	41	11	16	3	58	29	569	528	501.406	444.520	945.926	
911	127	87	20	15	12	9	†44-9	†45-13	3	54	33	549	511	513.821	472.328	986.150	
										56	33	549	511	510.227	467.427	977.654	

*Idiot

†Transferred to other hospitals.

TABLE II.

County Representation.

COUNTIES.	Quota.	MOVEMENT OF POPULATION.								Present Close of Year.			Clothing Account.
		October 1, 1910, to September 30, 1911.											
		Re- ceived.		Dis- charged.		Fur- loughed.		Died.					
		M.	F.	M.	F.	M.	F.	M.	F.				
Allen.....										2	1	3	\$17 47
Cass.....	58	9	4	8	4	11	19	8	2	39	49	88	505 77
Carroll.....					1		1				1	1	
Dekalb.....	*38	3	4	3	1	4	6		1	28	15	43	177 48
Decatur.....											1	1	9 98
Dearborn.....										1		1	
Delaware.....									1				
Elkhart.....	77	15	8	5	4	6	10	7	5	41	41	82	350 05
Fulton.....	32	2	1	1		4	3	2		15	6	21	120 75
Gibson.....										1		1	6 45
Huntington.....	*50	4	1	31	25	3	3	2	5				211 03
Jasper.....	22	3	2		1		1	2	1	15	11	26	88 46
Jefferson.....												1	
Kosciusko.....	43	2	3		3	2	3	4		22	15	37	167 37
Lake.....	107	14	11	3	1	8	7	7	3	42	44	86	421 99
Lagrange.....	*24	2		8	9	2	2	1					25 66
Laporte.....	86	10	12	1	1	6	6	5	1	41	36	77	485 42
Marshall.....	39	11	4	1		3	2		3	35	20	55	281 83
Miami.....	48	9	1	2		9	3	5	4	29	24	53	307 29
Marion.....										1		1	
Noble.....	*35	1	3	1		2		1		17	17	34	148 25
Newton.....	16	1		1			1		1	13	8	21	140 02
Orange.....											1	1	6 16
Porter.....	32	4	2	2				1	1	21	21	42	334 69
Pulaski.....	25	3	4	1		3	2	1		7	9	16	76 44
Perry.....											1	1	14 48
Parke.....											1	1	
Ripley.....											1	1	13 03
St. Joseph.....	123	23	14	5	8	13	13	5	3	64	60	124	590 65
Starke.....	19	2	4		2		5	1		10	9	19	81 28
Steuben.....	*21	1		12	21	2	2		1				115 47
Wabash.....	47	4	4	1		4	2	1		17	23	40	214 26
Whitley.....	26	4	3	1		4	2	2	1	17	15	32	155 71
White.....	*32		2	1	1	1	1	1		15	12	27	191 97
Totals.....	*1,000	127	87	88	82	87	94	56	33	493	443	936	\$5,260 31

*This quota was in effect until the transfer of five counties to the Eastern and one county to the Central Hospital on June 7, 1911.

TABLE III.

Statistics of Patients Admitted October 1, 1910, to September 30, 1911.

ALLEGED CAUSE OF INSANITY.	AGES.															
	Under 20 Years.		Between 20 and 30 Years.		Between 30 and 40 Years.		Between 40 and 50 Years.		Between 50 and 60 Years.		Between 60 and 70 Years.		Over 70 Years.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Alcohol.....			3	1	7		5	1	4		1				20	2
Arterio sclerosis.....									1		3	1	3		7	1
Chorea.....	1		1												2	
Cocainism.....							1								1	
Domestic infelicity.....					2		1	1					1		4	1
Disappointment.....			1				1								2	
Deprivation.....					2											2
Epilepsy.....			1	1											1	1
Heart disease.....							1		1						2	
Heredity.....	2	1	8	9	2	9	7	3	5	3	2				26	25
Hemiplegia.....											2		3		5	
Heat stroke.....			1						1						2	
Head injury.....			3				1								4	
Infection.....			2	1	1										3	1
Lead poison.....					1										1	
Morphine.....								1						1		2
Mental strain.....			2		2		1		1						6	
Mental shock.....	1		3		1						1				6	
Menopause.....								7		8		1		1		17
Nephritis.....					1									1	1	1
Not insane.....					1		2								3	
Puerperium.....				2	4				1		1					8
Overwork.....			2	3	3	1	1	1			1				6	6
Occupation poisoning.....					1										1	
Senility.....											1		1	5	1	6
Shock.....					1										1	
Syphilis.....		1		1	3	1	3	6	5	3		1			11	13
Thyroid intoxication.....		1														1
Worry.....			1		3		4		3						11	
Totals.....	4	3	28	18	29	17	28	20	21	15	9	6	8	8	127	87

TABLE IV.

Approximate Ages of Admitted, Fiscal Year October 1, 1910, to September 30, 1911.

AGES.	Male.	Female.	Total.
Between ten and twenty years.....	4	3	7
Between twenty and thirty years.....	28	18	46
Between thirty and forty years.....	29	17	46
Between forty and fifty years.....	28	20	48
Between fifty and sixty years.....	21	15	36
Between sixty and seventy years.....	9	6	15
Between seventy and eighty years.....	7	7	14
Over eighty years.....	1	1	2
Totals.....	127	87	214

TABLE V.

Approximate Ages of Recovery, Fiscal Year October 1, 1910, to September 30, 1911.

AGES.	Male.	Female.	Total.
Between ten and twenty years.....	1	1
Between twenty and thirty years.....	7	8	15
Between thirty and forty years.....	4	3	7
Between forty and fifty years.....	7	3	10
Between fifty and sixty years.....	1	1
Between sixty and seventy years.....	1	1
Over seventy years.....
Totals.....	20	15	35

TABLE VI.

Form of Insanity and Previous Duration of Disease in Patients Admitted October 1, 1910, to September 30, 1911.

FORM OF INSANITY.		DURATION OF DISEASE.																		Totals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
		Under 1 Month.		1 Month to 3 Months.		3 Months to 6 Months.		6 Months to 12 Months.		1 Year to 2 Years.		2 Years to 5 Years.		5 Years to 10 Years.		10 Years to 20 Years.		Over 20 Years.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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TABLE VII.

Statistics of Patients Admitted October 1, 1910, to September 30, 1911.

PREVIOUS OCCUPATION.	AGES.															
	Under 20 Years.		Between 20 and 30 Years.		Between 30 and 40 Years.		Between 40 and 50 Years.		Between 50 and 60 Years.		Between 60 and 70 Years.		Over 70 Years.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Attorney.....													1		1	
Agent.....										1						1
Baker.....									1						1	
Barber.....							1								1	
Blacksmith.....					1										1	
Boilermaker.....					1										1	
Brakeman.....			1												1	
Carpenter.....					1		2				1		2		6	
Clergyman.....									1						1	
Clerk.....				1	1										1	1
Cigarmaker.....					1										1	
Child.....	1														1	
Dishwasher.....			1												1	
Domestic.....		1		5		2		5		2		1		1		17
Farmer.....	2		7		4		10		6		4		3		36	
Fruit vender.....			1												1	
Grocer.....					1										1	
Grain merchant.....							1								1	
Horseman.....									1						1	
Housewife.....				8		11		12		12		4		3		50
Iceman.....					1										1	
Janitor.....					1										1	
Laborer.....			10		6		5		6		2				29	
Machine hand.....									1						1	
Machinist.....					2		1								3	
Mechanic.....									1						1	
Moulder.....					2										2	
Medicine vender.....					1											
None.....	1		4	1		1		2					1	4	5	8
Physician.....							1						1		2	
Pauper.....					1				1						2	
Papermaker.....							1								1	
Printer.....							1								1	
Painter.....					1		1								2	
Poultry merchant.....			1												1	
Railroad engineer.....											1				1	
Railroad conductor.....							1								1	
Railroader.....					1						1				2	
Special constable.....													1		1	
Supt. watch company.....									1						1	
Strawboard worker.....									1						1	
Shoemaker.....							1								1	
Salesman.....			1				1								2	
Stonemason.....					1										1	
Student.....		1														1
Seamstress.....						1		1							2	
Teacher.....						2	1					1			1	3
Telegrapher.....			2												2	
Unknown.....					1				1						2	
Woodworker.....					1										1	
Waitress.....		1		2												3
Wanderer.....				1												1
Totals.....	4	3	28	18	29	17	28	20	21	15	9	6	8	8	127	87

TABLE VIII.

Statistics of Patients Admitted October 1, 1910, to September 30, 1911.

NATIVITY.	AGES.																Total.	
	Under 20 Years.		Between 20 and 30 Years.		Between 30 and 40 Years.		Between 40 and 50 Years.		Between 50 and 60 Years.		Between 60 and 70 Years.		Over 70 Years.					
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Indiana.....	2	...	21	11	15	8	17	15	14	4	3	1	1	1	73	40		
Illinois.....	...	1	1	1	1	2	1	1	1	...	1	1	4	6		
Michigan.....	...	1	...	1	...	1	1	1	...	1	1	5		
New York.....	3	1	3	1		
North Carolina.....	1	1	...		
Ohio.....	2	2	1	1	3	4	3	2	3	9	12		
Pennsylvania.....	...	1	...	1	2		
Tennessee.....	1	1	...		
Unknown.....	1	2	...	2	...	1	...	2	...	7	...		
Virginia.....	1	1		
West Virginia.....	1	...	1		
Austria.....	1	...	1	3	2	3		
Belgium.....	1	1	...		
Bohemia.....	1	1		
Canada.....	1	1	1	1		
Denmark.....	1	1		
England.....	1	1	...	2	4	...		
Germany.....	1	1	3	1	4	2	8	4		
Hungary.....	1	1	4	...	1	1	6	2		
Italy.....	1	1	...		
Ireland.....	1	1	1	1		
Poland.....	1	1	...	1	...	1	1	3		
Russia.....	1	...	1	1	2	1		
Sweden.....	1	1	1	...		
Switzerland.....	1		
Totals.....	4	3	28	18	29	17	28	20	21	15	9	6	8	8	127	87		

TABLE IX.

Statistics of Patients Admitted October 1, 1910, to September 30, 1911.

COLOR.	AGES.															
	Under 20 Years.		Between 20 and 30 Years.		Between 30 and 40 Years.		Between 40 and 50 Years.		Between 50 and 60 Years.		Between 60 and 70 Years.		Over 70 Years.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
White.....	4	3	28	18	28	17	28	20	21	15	9	6	8	8	126	87
Colored.....			1												1	
Totals.....	4	3	29	18	28	17	28	20	21	15	9	6	8	8	127	87

TABLE X.

Statistics of Patients Admitted October 1, 1910, to September 30, 1911.

CIVIL CONDITION.	AGES.															
	Under 20 Years.		Between 20 and 30 Years.		Between 30 and 40 Years.		Between 40 and 50 Years.		Between 50 and 60 Years.		Between 60 and 70 Years.		Over 70 Years.		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Single.....	4	3	23	9	12	5	9	5	6	2	2	1	54	27		
Married.....			3	8	11	10	14	11	12	9	5	3	7	3	52	44
Divorced.....			1		1	2		1							2	3
Unknown.....				1	5		3		4		4		1		17	1
Widow(er).....				1			1	3		4		1		4	2	12
Totals.....	4	3	27	18	30	17	27	20	22	15	9	6	8	8	127	87

TABLE XI.

Duration and Psychoses of Recovered, Fiscal Year 1910-1911.

PSYCHOSES.	Un- known.		Under 4 Months.		Under 6 Months.		Under 12 Months.		Under 18 Months.		Under 2 Years.		Under 3 Years.		Under 4 Years.		Under 5 Years.		Under 10 Years.		Under 15 Years.		Under 20 Years.		Under 30 Years.		Aggregate.		To- tal.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Melancholia.....																		1											3		
Manic depressive.....	1						2	3			3		1					1										13	6	19	
Alcoholic insanity.....							1				1							2										4	1	5	
Morphinism.....			1		1		1				1																		3		3
Cocainism.....											1																		1		1
Post infection psychoses.....		1																												1	1
Thyrotoxic insanity.....							2																						2		2
Pyrogenous insanity.....																														1	1
Cerebral lucs.....																		1													1
Totals.....	1	1	1	1	1		3	5			5	2	3				3	2	4	1			1				20	15	35		

TABLE XII.

Duration of Mental Diseases in Persons Who Recovered October 1, 1910, to September 30, 1911.

PERIOD.	FIRST ADMITTED TO ANY HOSPITAL.						ALL OTHER ADMISSIONS.			
	Duration Before Admission.		Hospital Residence.		Whole Duration.		Whole Known Period of Mental Disease.		Whole Known Period of Hospital Residence.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under one month.....	3	2	1							
From one to three months...	2		1	1	1	1				
From three to six months...		2	2	6	1	1				
From six to twelve months...	2	1	6	3	5	2				1
From one to two years.....	4	2	4	2	4	2	1		1	2
From two to five years.....	3	2	2		4	3		1		
From five to ten years.....	2	1	1		1	1	1		1	
From ten to twenty years...		1				1		1		
Over twenty years.....		1				1	1		1	
Unknown.....	1				1					
Totals.....	17	12	17	12	17	12	3	3	3	3

TABLE XIII.

Approximate Ages of Those Who Died, Fiscal Year October 1, 1910, to September 30, 1911.

AGES.	Male.	Female.	Total
Under twenty years.....			
From twenty to thirty years.....	6	1	7
From thirty to forty years.....	7	2	9
From forty to fifty years.....	9	3	12
From fifty to sixty years.....	15	6	21
From sixty to seventy years.....	11	8	19
From seventy to eighty years.....	7	11	18
Over eighty years.....	1	2	3
Totals.....	56	33	89

TABLE XIV.

Deaths, Psychoses and Complications, Fiscal Year, 1910-1911.

COMPLICATIONS.	PSYCHOSES.																																
	Imbecility.		Dementia Præcox.		Paranoia.		Manic Depres- sive.		Infection Delirium.		Post Infection Psychoses.		Intoxication Psychoses.		Alcoholic Insanity.		Epilepsy.		Chorea.		General Paresis.		Organic Dementia.		Arterio Sclerotic Insanity.		Melancholia Involuntional.		Senile Dementia.		Aggregate.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	To- tal.		
Organic brain disease.....																							1									1	
Paresis.....																							9									9	
Cerebral hemorrhage.....							4	1														3										2	
Status epilepticus.....																									2								16
Maniacal exhaustion.....																																	1
Chorea.....							2	1														1										1	
Chronic nephritis.....																																	1
Valvular disease of the heart.....							1																										3
Acute cardiac dilatation.....								3																									3
Septic endocarditis.....																																	3
Cardiac embolism.....																																	1
Fatty degeneration of the heart.....								1																									1
Senile gangrene.....																																	1
Insolation.....																																	1
Exhaustion from dislocation of hip.....																																	1
Tubercular endocarditis.....	1																																1
Acute miliary tuberculosis.....																																	1
Pulmonary tuberculosis.....							1	2																									2
Tubercular enteritis.....																																	1
Peritonitis.....																																	1
Dysentery.....																																	1
Chronic appendicitis.....																																	1
Pancreatitis.....																																	1
Septicæmia.....																																	1
Broncho pneumonia.....																																	3
Lobar pneumonia.....																																	4
Hypostatic pneumonia.....																																	2
Drowning (accidental).....																																	1
Totals.....	1	5	1	1	1	9	16	2			1		1	4		2	1	2		15	2	2			2	8	2	6	6	33	89		

TABLE XV.

*Duration of Mental Diseases in Persons Who Died October 1, 1910, to
September 30, 1911.*

DURATION.	FIRST ADMISSION TO ANY HOSPITAL.						ALL OTHER ADMISSIONS.			
	Duration Before Admission.		Hospital Residence.		Whole Duration.		Whole Known Period of Duration.		Whole Known Period of Hospital Residence.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under one month.....	6	6	3	2	2
From one to three months...	10	5	3	3
From three to six months...	2	1	1	1	1
From six to twelve months...	8	1	10	5	4	1	4
From one to two years.....	13	1	15	2	7	7
From two to five years.....	8	7	12	5	23	5	23	3
From five to ten years.....	5	4	5	1	8	6	1	2	9	2
From ten to twenty years...	4	2	3	2	2	2	2
Over twenty years.....	4	2	8	1	7	1	6
Unknown.....	4	3	1	4
Totals.....	56	21	56	22	51	22	5	11	56	11

FISCAL TABLES.

EXHIBIT No. 1.

SUMMARY OF INVENTORIES, FISCAL YEAR 1910-11.

Equipment.

General office	\$2,653 66
Superintendent's office	763 41
Miscellaneous library	1,117 00
Medical library	2,192 16
Medical offices	1,558 18
Hall, first floor Administration Building	809 91
Telephone office	312 69
Officers' quarters	8,120 33
Pathological Building	5,044 97
Administration kitchen	786 83
General kitchen	4,178 96
Central dining hall	1,492 79
Employees' dining hall	1,459 07
Employees' quarters	2,733 75
Bakery	875 95
Store supplies	9,731 32
Store furniture	858 21
Farm and garden products	5,101 66
Provender in barns	3,419 00
Sewing room	496 69
Assembly hall	2,569 10
Orchestra equipment	271 65
Laundry	4,238 17
Wards	48,832 70
Engineer's stock and tools	2,823 92
Florist's stock and tools	3,873 76
Carpenter's stock and tools	1,057 92
Painter's stock and tools	1,101 20
Dairy stock and tools	5,337 49
Carriage stable stock, vehicles and tools	2,910 09
Farm and garden stock and tools	5,418 97
Fire apparatus	442 25
Meat room	364 26
Milk room	239 43
Industrial departments	440 10
Total	\$133,627 55

EXHIBIT No. 1—Continued.

REAL ESTATE.

Land and improvements to land other than buildings.....	\$57,456 76
Buildings	729,295 66
Total	\$786,752 42

Summary.

Land and buildings	\$786,752 42
Equipment	133,627 55
Total	\$920,379 97

EXHIBIT No. 2.

CLASSIFIED EXPENDITURES OCTOBER 1, 1910, to SEPTEMBER 30,
1911—CURRENT EXPENDITURES.

<i>Administration.</i>	Amount.	*Per Capital.
Trustees or directors	\$1,200 00	\$1.2273
Officers	11,918 33	12.1900
Teachers, literary
Teachers, industrial
Attendants	31,574 20	32.2940
Domestics, laborers and other employes	33,559 42	34.3245
Guards
Total	\$78,251 95	\$80.0358
<i>Subsistence.</i>		
Fresh meats	\$16,862 53	\$17.2469
Salted meats and lard	4,651 68	4.7577
Fish (fresh and cured), oysters, etc.....	184 00	0.1881
Butter, eggs and poultry	9,629 83	9.8493
Vegetables	1,642 36	1.6798
Fresh fruits	413 09	0.4225
Dried fruits	1,265 11	1.2939
Canned goods	1,243 10	1.2714
Breadstuffs, cereals, beans, etc.	6,693 04	6.8456
Vinegar and sirup	905 67	0.9263
Tea, coffee and sugar	6,049 70	6.1876
Milk	†.....
All other food supplies	373 55	0.3820
Total	\$49,913 66	\$51.0511

* Based on daily average attendance.

† Produced on farm.

EXHIBIT No. 2—Continued.

<i>Clothing, Etc.</i>	Amount.	*Per Capita.
Clothing	\$3,932 07	\$4.0217
Shoes	685 87	0.7015
Tailor and sewing room supplies	92 35	0.0944
Total	\$4,710 29	\$4.8176

Office, Domestic and Outdoor Departments.

School supplies
Library, newspapers and periodicals	\$306 33	\$0.3133
Stationery and printing	1,155 49	1.1818
Supplies for industrial department
Furniture, fixtures and other household equipment.	10,283 26	10.5177
Laundry supplies, soap and other cleansers.....	2,860 65	2.9258
Medicines, instruments and other sick ward supplies	2,247 27	2.2985
Postage, telegraph and telephone	720 31	0.7367
Freight and transportation	1,335 35	1.3657
Stable, farm, garden, provender, etc.....	10,508 76	10.7483
Ice	5 33	0.0054
Tobacco	1,005 57	1.0284
Music and amusements	1,035 43	1.0590
Expense of discharged inmates
Fuel	17,007 73	17.3955
Light	578 17	0.5913
Engineers' supplies	646 39	0.6611
Water
Insurance
Other classifications	1,290 91	1.3202
Total	\$50,986 95	\$52.1488

Ordinary Repairs and Minor Improvements.

Materials	\$5,333 94	\$5.4555
Labor	1,625 62	1.6623
Total	\$6,959 56	\$7.1181
Grand total of current expenditures	\$190,822 41	\$195.1714
Less earnings paid to state treasury, and less accounts due from counties for clothing, maintenance, etc.	7,087 44	
Net cost to State	\$183,734 97	\$187.9241

EXHIBIT No. 3.

Being a List of Disbursements on Account of Maintenance for the Fiscal Year Ending September 30, 1911.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
1.	Fred W. Terflinger, Medical Supt..	Contingent fund	\$1,000 00
2.	Fred W. Terflinger, Medical Supt..	Officers' payroll	1,018 33
3.	Fred W. Terflinger, Medical Supt..	Employees' payroll	4,657 54
4.	Fred W. Terflinger, Medical Supt..	Contingent fund payments...	322 23
5.	Armour & Co.....	Meat	74 79
6.	Swift & Co.....	Meat	1,404 67
7.	Schwarzschild & Sulzberger Co....	Meat	684 63
8.	Morris & Co.....	Meat	202 20
9.	W. C. Routh & Co.....	Meat	169 02
10.	McDowell Bros.	Meat	5 20
11.	F. W. Kinney	Meat	144 00
12.	Reid, Murdoch & Co.....	Groceries	423 44
13.	Sprague, Warner & Co.....	Groceries	352 95
14.	Franklin MacVeagh & Co.....	Groceries	21 50
15.	Elliott Grocery Co.....	Groceries	1,339 73
16.	L. M. Brackett & Co.....	Groceries	615 15
17.	Frank Hall	Groceries	22 02
18.	Perfection Biscuit Co.....	Groceries	51 76
19.	The Fleischmann Co.....	Yeast	8 25
20.	The Capital City Dairy Co.....	Butterine	608 85
21.	Beyer Bros. Co.	Eggs	243 00
22.	G. Caruso	Apples	27 00
23.	Levi Paul	Apples	19 66
24.	Pitman-Myers Co.	Drugs	48 17
25.	Harry C. Tritt	Drugs	4 36
26.	Rhoads & Fillman.....	Dry goods	94 59
27.	The John H. Hibben Dry Goods Co.	Dry goods	448 65
28.	The Seybold Dry Goods Co.....	Dry goods	283 61
29.	Grover C. Isaacs.....	Vegetables	30 06
30.	Oscar Homburg	Potatoes	43 33
31.	Herman Homburg	Potatoes	24 37
32.	L. B. Horn.....	Potatoes	371 02
33.	Wm. Grisley	Potatoes	19 30
34.	R. F. Heath	Potatoes	16 29
35.	Fairbanks, Morse & Co.....	Rubber tires	7 25
36.	The Fulton-Evans Co.....	Filing cabinet	31 00
37.	Jas. S. Kirk & Co.....	Soap	967 40
38.	Indiana Coal & Fuel Co.....	Coal	1,395 01
39.	H. Kohnstamm & Co.....	Washing soda	49 00
40.	Flanegin Hardware Co.....	Hardware	44 55
41.	Rice Hardware Co.....	Hardware	35 91
42.	C. A. Eberlein.....	Tinware	65 30
43.	The Garlock Packing Co.....	Packing	12 99
44.	Parker & Johnston.....	Lumber	12 00
45.	H. W. Johns-Manville Co.....	Packing	9 62
46.	Hal B. Smith & Co.....	Clock	3 50
47.	Geo. A. Schaefer	Horseshoeing	14 90
48.	W. B. Schwalm	Scoop shovels	5 50
49.	Frank Ulerick	Cutting ensilage corn.....	52 00
50.	S. W. Ulery & Son.....	Hardware	3 31
51.	Young & Custer	Horse blankets	12 00
52.	The Yale & Towne Mfg. Co.....	Key blanks	4 01
53.	J. B. Kingery, veterinarian.....	Professional visits	14 00

EXHIBIT No. 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
54.	J. B. Lippincott Co.....	Medical book	\$6 00
55.	The H. Lieber Co.....	Motion picture films.....	30 00
56.	Logansport Carriage Works.....	Blacksmithing	18 00
57.	A. Meinecke & Son.....	Baskets	91 14
58.	Thomas Meyer	Harness supplies	2 00
59.	Jacob Minneman	Hauling ensilage corn.....	21 00
60.	Charles H. Rhoads.....	Hauling ensilage corn.....	8 75
61.	The Sanitas Co.....	Disinfectants	34 00
62.	E. W. Ross Co.....	Ensilage cutter parts.....	17 05
63.	Badger Furniture Co.....	House furnishings	141 50
64.	L. S. Ayres & Co.....	Housekeeping supplies	30 00
65.	Geo. W. Cann & Co.....	Laundry supplies	5 50
66.	Western Electric Co.....	Electrical supplies	35 82
67.	Snider & Alber.....	Tableware	172 64
68.	Standard Oil Co.....	Oils and lubricants	91 16
69.	Dennis Uhl & Co.....	Dairy and stable provender..	504 20
70.	H. Wiler & Co.....	House furnishings	13 15
71.	Fred W. Terfingler.....	Traveling expenses	14 45
72.	C. O. Fenton	Advertising	2 00
73.	Dan W. Erb.....	Services as organist	6 00
74.	Rev. W. T. Arnold.....	Chaplain	5 00
75.	Rev. H. E. Stuehm.....	Chaplain	5 00
76.	Rev. J. F. Frazer.....	Chaplain	5 00
77.	The Western Union Telegraph Co..	Telegrams for October.....	7 66
78.	Adams Express Co.....	Expressage	14 19
79.	Logansport Home Telephone Co....	Telephone service	32 60
80.	Vaughan's Seed Store.....	Plants	47 30
81.	E. M. Hoyt, cashier.....	Freight	1,377 70
82.	Fred W. Terfingler, Medical Supt..	Officers' payroll	1,018 33
83.	Fred W. Terfingler, Medical Supt..	Employes' payroll	4,644 83
84.	Fred W. Terfingler, Medical Supt..	Contingent fund payments...	71 21
85.	Armour & Co.....	Meats	32 92
86.	Swift & Co.....	Meats	953 26
87.	Morris & Co.....	Meats	142 66
88.	W. C. Routh & Co.....	Meats	227 42
89.	Beyer Bros. Co.....	Eggs	193 20
90.	F. W. Kinney	Fresh meats	3 00
91.	The Capital City Dairy Co.....	Butterine	607 20
92.	Reid, Murdoch & Co.....	Groceries	703 85
93.	Franklin MacVeagh & Co.....	Groceries	199 93
94.	Sprague, Warner & Co.....	Groceries	8 75
95.	Elliott Grocery Co.....	Groceries	491 87
96.	Frank Hall	Groceries	28 64
97.	Perfection Biscuit Co.....	Groceries	36 06
98.	Pitman-Myers Co.	Druggists' sundries	33 89
99.	Parke, Davis & Co.....	Medicine	45 00
100.	The Fleischmann Co.....	Yeast	10 35
101.	H. Kohnstamm & Co.....	Laundry supplies	30 76
102.	The Journal Corporation Co.....	Advertising	3 00
103.	Louthain & Barnes.....	Advertising	2 00
104.	The Logansport Tribune Co.....	Advertising	2 00
105.	Daily Reporter	Advertising	2 00
106.	The Chronicle.....	Advertising	2 00
107.	Thomas Meyer	Harness supplies.....	16 70
108.	C. F. Oliver	Chickens	29 50
109.	Edward E. Davis.....	Traveling expenses	9 15
110.	The John H. Hibben Dry G'ds Co..	Dry goods.....	113 42
111.	The Seybold Dry Goods Co.....	Dry goods.....	7 85

EXHIBIT No. 3—Continued.

No.	To Whom Paid.	On Account of.	Amount.
112.	Geo. A. Schaefer.....	Horseshoeing	\$13 45
113.	Snider & Alber	Tableware	30 07
114.	W. B. Schwalm	Hardware	3 95
115.	Safety Electric Co.....	Electrical supplies.....	65 25
116.	The Fostoria Incand'nt Lamp Co..	Electric lamps.....	40 00
117.	Rice Hardware Co.....	Hardware	13 65
118.	Flanegin Hardware Co.....	Hardware	41 55
119.	Rhoads & Porter.....	Corn	88 86
120.	Grover DeFord	Corn	16 82
121.	Chas. H. Rhoads	Corn	13 67
122.	Wm. H. Porter.....	Corn	228 06
123.	Herman Homburg	Pigs and corn.....	441 27
124.	Wm. Crisley	Pigs and corn.....	120 00
125.	V. P. Chambers.....	Pigs and corn.....	226 80
126.	Standard Oil Co.....	Oils	85 10
127.	Geo. W. Cann & Co.....	Electrical supplies.....	3 00
128.	Cameron, Amberg & Co.....	Marking pens.....	4 05
129.	Vaughan's Seed Store.....	Plants	26 97
130.	F. A. Baller.....	Plants	3 00
131.	Bramhall Range Co.....	Tinware	21 00
132.	The American Laundry Mach. Co..	Castings	7 00
133.	Advance Packing & Supply Co....	Gage glasses.....	9 50
134.	The E. W. Lieber Co.....	Films	30 00
135.	Brunswick-Balke-Collender Co....	Billard supplies.....	32 95
136.	Wm. B. Burford.....	Stationery	203 70
137.	C. A. Eberlein.....	Tinware	3 28
138.	The Heath Foundry & Mfg. Co....	Lawn mower grinder.....	27 00
139.	Rev. J. A. Sumwalt.....	Chaplain	5 00
140.	Rev. J. O. Simons.....	Chaplain	5 00
141.	Dan W. Erb.....	Organist	7 00
142.	The Phoenix Oil Co.....	Soap	31 38
143.	The Southworth Co.....	Stereo clinic	11 25
144.	H. Wiler & Co.....	House furnishings	19 50
145.	Montgomery Ward & Co.....	Whistles	5 67
146.	Truax, Green & Co.....	Surgeons' needles	5 44
147.	W. E. Foy.....	Stabling team	2 20
148.	The Pacific Express Co.....	Expressage	1 60
149.	The Western Union Telegraph Co..	Telegrams	10 71
150.	Central Union Telephone Co.....	Telephone rent	4 20
151.	Adams Express Co.....	Expressage	14 64
152.	Indiana Coal & Fuel Co.....	Coal	1,135 38
153.	E. M. Hoyt, Cashier.....	Freight	2,033 63
154.	Fred W. Terflinger, Med. Supt....	Officers' payroll	1,023 33
155.	Fred W. Terflinger, Med. Supt....	Employes' payroll	4,624 69
156.	Fred W. Terflinger, Med. Supt....	Contingent fund payments...	50 24
157.	Swift & Co.....	Meats	1,621 05
157½.	Morris & Co.....	Meats	95 69
158.	W. C. Routh & Co.....	Meats	161 92
159.	F. W. Kinney.....	Oysters	58 20
160.	Reid, Murdoch & Co.....	Groceries	635 09
161.	Sprague, Warner & Co.....	Groceries	124 89
162.	Elliott Grocery Co.....	Groceries	14 50
163.	Frank Hall	Groceries	38 70
164.	Perfection Biscuit Co.....	Groceries	54 03
165.	L. M. Brackett & Co.....	Groceries	47 25
166.	The Geiger-Tinney Co.....	Groceries	540 85
167.	The Capital City Dairy Co.....	Butterine	607 20
168.	Clark & Co.....	Tobacco	240 96

EXHIBIT No. 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
169.	Dr. A. J. Kelsey.....	Potatoes	\$620 60
170.	Daniel Stewart Co.....	Drugs	22 72
171.	Pitman-Myers Co.....	Drugs	5 85
172.	J. Elwood Lee Co.....	Druggists' sundries	13 44
173.	Lewis Manufacturing Co.....	Gauze	45 00
174.	Truax, Greene & Co.....	Surgical instruments	37 14
175.	The Seybold Dry Goods Co.....	Dry goods	24 35
176.	Wiler & Wise.....	House furnishings	76 31
177.	Wm. B. Burford.....	Stationery and printing.....	139 72
178.	Northern Ohio Blanket Mills.....	Blankets	39 00
179.	Lake Maxinkuckee Ice Co.....	Ice	5 33
180.	The Longwell-Cummings Co.....	Stationery	4 49
181.	The J. I. Holcomb Mfg. Co.....	Brushes	43 35
182.	W. M. Graffis.....	Harness blacking	1 50
183.	W. L. Fernald.....	Lumber	3 00
184.	Dr. C. D. Eversole.....	Dental service	5 00
185.	The Corkins Chemical Co.....	Insecticide	20 00
186.	Geo. W. Cahn & Co.....	Electrical supplies	5 40
187.	The Cudahy Packing Co.....	Soap powder	50 00
188.	Chapman & Smith Co.....	Vanilla	18 75
189.	G. Caruso	Oranges	3 50
190.	Badger Furniture Co.....	One runner for hall	16 50
191.	The Babcock & Wilcox Co.....	Steam and water fittings... ..	30 20
192.	S. F. Bowser & Co.....	Gasoline tank supplies.....	11 00
193.	Armour & Co.....	Salt sacks	28 80
194.	The American Laundry Mach. Co..	Castings	8 75
195.	Godfrey Aschmann.....	Plants	36 00
196.	Dr. J. B. Kingery.....	Veterinary services	9 00
197.	I. N. Crawford.....	Hardware	4 20
198.	Rice Hardware Co.....	Hardware	14 35
199.	Flanegin Hardware Co.....	Hardware	17 25
200.	Vonnegut Hardware Co.....	Housefurnishings	25 60
201.	W. I. Shearer & Son.....	Ice cream	6 30
202.	H. Wiler & Co.....	Cork carpet	48 75
203.	James H. Rhoads & Co.....	Calcium chloride	13 65
204.	Rhoads & Porter.....	Corn	180 96
205.	Snider & Alber.....	Tableware	7 45
206.	Geo. A. Schaefer.....	Horseshoeing	21 15
207.	Standard Oil Co.....	Oils	84 08
208.	Vaughan's Seed Store.....	Plants	81 90
209.	John Wanamaker.....	Quilt	6 30
210.	S. W. Ullery & Son.....	Hardware	1 93
211.	Dennis Uhl & Co.....	Stable provender	72 00
212.	The F. Bissell Co.....	Electrical supplies	36 27
213.	W. H. Hayworth.....	Drilling well	329 50
214.	The Logansport Times.....	Advertising	2 00
215.	The Logansport Tribune.....	Advertising	2 00
216.	Daily Reporter.....	Advertising	2 00
217.	Louthain & Barnes.....	Advertising	2 00
218.	The Journal Corporation.....	Advertising	2 00
219.	The Chronicle	Advertising	2 00
220.	Adams Express Co.....	Expressage	33 54
221.	The Western Union Telegraph Co..	Telegrams for December.....	9 00
222.	Logansport Home Telephone Co...	Telephone rent and toll.....	31 75
223.	Chas. W. Slick.....	Trustee	91 10
224.	Warren T. McCray.....	Trustee	79 60
225.	Wm. A. Morris.....	Trustee	79 20
226.	W. G. Zahrt.....	Trustee	80 70

EXHIBIT No. 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
227.	The Cincinnati, Gas, etc., Co.....	Coke	\$141 00
228.	Indiana Coal & Fuel Co.....	Coal	1,045 32
229.	E. M. Hoyt, Cashier.....	Freight	1,679 68
230.	Fred W. Terflinger, Med. Supt.....	Officers' payroll	1,023 33
231.	Fred W. Terflinger, Med. Supt.....	Employes' payroll	4,742 68
232.	Fred W. Terflinger, Med. Supt.....	Contingent fund payments...	157 30
233.	Reid, Murdoch & Co.....	Groceries	445 88
234.	Sprague, Warner & Co.....	Groceries	362 60
235.	Franklin MacVeagh & Co.....	Groceries	144 34
236.	Elliott Grocery Co.....	Groceries	486 75
237.	Frank Hall	Groceries	58 44
238.	Perfection Biscuit Co.....	Groceries	48 06
239.	Boerger Bros.	Groceries	7 00
240.	The Fleischmann Co.....	Yeast	9 65
241.	Lougrey Bros. Milling & Grain Co.,	Flour and bran	1,990 10
242.	Acme Evans Co.....	Flour	1 60
243.	Swift & Co.....	Meats	1,180 53
244.	The G. H. Hammond Co.....	Meats	133 91
245.	Schwarzschild & Sulzberger Co....	Meats	100 76
246.	Morris & Co.....	Meats	56 93
247.	Major Bros. Packing Co.....	Meats	122 84
248.	W. C. Routh & Co.....	Meats	63 37
249.	F. W. Kinney.....	Fish and oysters	135 40
250.	The Capital City Dairy Co.....	Butterine	607 20
251.	Pitman-Myers Co.....	Drugs and sundries	118 85
252.	Daniel Stewart Co.....	Drugs	37 61
253.	Harry C. Tritt.....	Drugs and sundries	36 15
254.	Parke, Davis & Co.....	Drugs and sundries	45 00
255.	Millcreek Distilling Co.....	Alcohol	28 20
256.	Flanegin Hardware Co.....	Hardware	184 34
257.	Rice Hardware Co.....	Hardware	16 50
258.	The Seybold Dry Goods Co.....	Dry goods	44 20
259.	Rhoads & Fillman.....	Dry goods	291 43
260.	H. Wiler & Co.....	House furnishings	368 35
261.	Dennis Uhl & Co.....	Provender	93 35
262.	Architectural Record Co.....	Builders' index	5 00
263.	The H. Lieber Co.....	Film service	24 00
264.	The "Sanitas" Co.....	Disinfecting liquid	68 40
265.	Wm. H. Porter.....	Corn	28 22
266.	C. L. Dilley Co.....	Provender and lime.....	59 00
267.	The Garlock Packing Co.....	Packing	38 84
268.	W. H. Hayworth.....	Drilling well	258 46
269.	Mills Electric Co.....	Electrical supplies	113 13
270.	Geo. W. Cann & Co.....	Electrical supplies	16 55
271.	The F. Bissel Co.....	Electrical supplies	4 74
272.	Marblehead Lime Co.....	Lime	46 80
273.	Standard Oil Co.....	Oils and lubricants	82 19
274.	Snider & Alber.....	Tableware	162 41
275.	Geo. A. Schaefer	Horseshoeing	17 65
276.	The Globe-Wernecke Co.....	Transfer cases	12 50
277.	Keuffel & Esser Co.....	Drafting paper	4 91
278.	Illinois Leather Co.....	Laundry supplies	6 10
279.	Frank S. Betz & Co.....	Druggists' sundries	12 00
280.	Bramhall Range Co.....	Tinware	17 71
281.	Badger Furniture Co.....	House furnishings	42 50
282.	Singer Sewing Machine Co.....	Needles	43 20
283.	H. D. Schaefer.....	Cleaning rugs	22 90
284.	Wagemaker Co.....	Indexes	11 10

EXHIBIT No. 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
285.	Truax, Greene & Co.....	Druggists' sundries	\$19 25
286.	Vaughan's Seed Store.....	Plants	25 48
287.	National Chemical Co.....	Washing soda	196 00
288.	The National Ammonia Co.....	Aqua ammonia	37 45
289.	J. Ellwood Lee Co.....	Druggists' sundries	25 00
290.	Lea & Febiger.....	Medical book	6 00
291.	H. Kohnstamm & Co.....	Laundry supplies	15 12
292.	Gerts, Lumbard & Co.....	Brushes	6 00
293.	C. A. Eberlein.....	Garbage cans	42 00
294.	Dan W. Erb.....	Piano tuning	25 50
295.	Coldwell Lawn Mower Co.....	Lawn mower parts	21 78
296.	Samuel Chambers	Livestock	390 35
297.	Brunswick-Balke-Collender Co....	Billard supplies	1 00
298.	Wm. B. Burford.....	Stationery	11 75
299.	S. F. Bowser & Co.....	Nozzle for tank pump	2 00
300.	Louthain & Barnes	Newspapers	13 50
301.	The Logansport Tribune Co.....	Newspapers and advertising..	12 50
302.	Daily Reporter.....	Newspapers and advertising..	16 40
303.	The Journal Corporation.....	Advertising	2 00
304.	The Logansport Chronicle.....	Advertising	2 00
305.	Central Union Telephone Co....	Rental and toll	3 85
306.	Western Union Telegraph Co.....	Telegrams	6 16
307.	Adams Express Co.....	Expressage	8 90
308.	Rev. J. F. Frazer.....	Chaplain	5 00
309.	Indiana Coal & Fuel Co.....	Coal	1,184 22
310.	E. M. Hoyt, Cashier.....	Freight	2,038 28
311.	Fred W. Terdfinger, Med. Supt....	Officers' payroll	1,023 33
312.	Fred W. Terdfinger, Med. Supt....	Employees' payroll	4,771 54
313.	Fred W. Terdfinger, Med. Supt....	Contingent fund payments ...	86 31
314.	Swift & Co.....	Meats	1,061 00
315.	Scharzschild & Sulzberger Co....	Meats	100 76
316.	Morris & Co.....	Meats	616 67
317.	The G. H. Hammond Co.....	Meats	33 46
318.	Major Bros. Packing Co.....	Meats	15 12
319.	W. C. Routh & Co.....	Meats	10 75
320.	McDowell Bros.	Meats	8 71
321.	F. W. Kinney.....	Fish and oysters	43 80
322.	The Capital City Dairy Co.....	Butterine	607 20
323.	Elliott Grocery Co.....	Groceries	391 98
324.	Reid, Murdoch & Co.....	Groceries	4 40
325.	Sprague, Warner & Co.....	Groceries	480 98
326.	Boerger Bros.	Groceries	14 75
327.	Frank Hall	Groceries	35 00
328.	Perfection Biscuit Co.....	Groceries	49 90
329.	The Fleischmann Co.....	Yeast	8 65
330.	Pitman-Myers Co.	Drugs and sundries	68 00
331.	Harry C. Tritt.....	Drugs and sundries	20 43
332.	Henry Weinhagen	Clinical thermometers	18 00
333.	Parke, Davis & Co.....	Drugs	45 00
334.	W. H. Porter & Co.....	Drugs	24 00
335.	International Chemical Co.....	Germ destroyers	20 00
336.	VanHorn & Sawtell.....	Druggists' sundries	2 95
337.	H. Wiler & Co.....	Housekeeping supplies	21 85
338.	Standard Oil Co.....	Oils	96 45
339.	Mills Electric Co.....	Electrical supplies	71 42
340.	C. A. Eberlein.....	Galvanized iron work	105 08
341.	The Seybold Dry Goods Co.....	Dry goods	55 99
342.	Wiler & Wise.....	Dry goods	78 74

EXHIBIT No. 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
343.	Flanegin Hardware Co.....	Hardware	\$25 00
344.	Rice Hardware Co.....	Hardware	7 70
345.	Snider & Alber	Tableware	54 35
346.	Geo. A. Schaefer.....	Horseshoeing	7 15
347.	W. B. Schwalm	Clover seed	52 50
348.	Sears, Roebuck & Co.....	Corn sheller	21 35
349.	C. L. Dilley Co.....	Stable provender	80 80
350.	James H. Rhoads & Co.....	Calcium chloride	10 85
351.	M. J. Winfield	Livestock	65 00
352.	Vaughan's Seed Store	Plants	40 09
353.	Advance Packing & Supply Co.....	Packing	32 83
354.	Wm. B. Burford	Stationery	36 61
355.	The F. Bissell Co.....	Electrical supplies	3 38
356.	Barbee Wire & Iron Works.....	Wire baskets	8 00
357.	Daniel Lowe & Co.....	Housekeeping supplies	24 20
358.	The Journal of N. and M. Diseases.	Books	5 00
359.	Ingersoll-Rand Co.....	Lubricants	4 75
360.	Crandall Packing Co.....	Packing	6 50
361.	The Draper Mfg. Co.....	Paper-dials	3 10
362.	Dodge Mfg. Co.....	Wood pulleys	4 07
363.	Dr. J. B. Kingery.....	Veterinary services	6 00
364.	The H. Lieber Co.....	Film service	24 00
365.	H. D. Schaefer.....	Cleaning rugs	3 00
366.	Lea & Febiger	Medical books	6 00
367.	Logansport Carriage Works.....	Blacksmithing	7 75
368.	The Longwell-Cummings Co.....	Binding vouchers	32 50
369.	Thomas Meyer	Harness supplies	2 10
370.	Western Union Telegraph Co.....	Telegrams	10 96
371.	Central Union Telephone Co.....	Rent and toll	3 40
372.	Adams Express Co.....	Expressage	6 90
373.	The Journal Corporation Co.....	Advertising and subscription.	14 50
374.	Louthain & Barnes	Advertising	4 00
375.	The Logansport Tribune Co.....	Advertising	4 00
376.	Daily Reporter	Advertising	2 00
377.	Indiana Coal & Fuel Co.....	Coal	687 72
378.	E. M. Hoyt, Cashier	Freight	1,087 07
379.	Fred W. Terflinger, Med. Supt.....	Officers' payroll	1,023 33
380.	Fred W. Terflinger, Med. Supt.....	Employees' payroll	4,656 95
381.	Fred W. Terflinger, Med. Supt.....	Contingent fund payments ...	102 62
382.	Swift & Co.....	Meats	1,214 45
383.	Morris & Co.....	Meats	71 56
384.	The G. H. Hammond Co.....	Meats	139 42
385.	The Scharzschild & Sulzberger Co..	Meats	125 95
386.	Major Bros. Packing Co.....	Meats	110 13
387.	W. C. Routh & Co.....	Meats	17 27
388.	McDowell Bros.	Meats	10 05
389.	F. W. Kinney	Oysters	1 80
390.	The Capital City Dairy Co.....	Butterine	625 25
391.	Reid, Murdoch & Co.....	Groceries	63 25
392.	Sprague, Warner & Co.....	Groceries	64 75
393.	Franklin MacVeagh & Co.....	Groceries	96 70
394.	Elliott Grocery Co.....	Groceries	782 34
395.	Boerger Bros.	Groceries	49 90
396.	Perfection Biscuit Co.....	Groceries	40 45
397.	The Geiger-Tinney Co.....	Coffee	539 00
398.	The Fleischmann Co.....	Yeast	9 25
399.	C. V. Conrad.....	Potatoes	23 70
400.	Loughrey Bros. Mill. & Grain Co..	Bran	345 00

EXHIBIT No. 3—Continued.

No.	To Whom Paid.	On Account of.	Amount.
401.	A. C. Smith.....	Drugs	\$30 20
402.	Pitman-Myers Co.....	Drugs	20 05
403.	Harry C. Tritt.....	Drugs	15 85
404.	Lewis Mfg. Co.....	Druggists' sundries	190 00
405.	Mills Electric Co.....	Electrical supplies	19 96
406.	Sears, Roebuck & Co.....	Electrical supplies	8 14
407.	S. W. Ullery & Son.....	Hardware	3 56
408.	Rice Hardware Co.....	Hardware	166 53
409.	C. B. Rhoads	Plumbing material	693 20
410.	I. N. Crawford.....	Hardware	21 68
411.	Flanegin Hardware Co.....	Hardware	37 75
412.	C. A. Eberlein.....	Galvanized iron work	4 12
413.	Vaughan's Seed Store.....	Seeds	168 62
414.	Van Camp Packing Co.....	Bull	100 00
415.	Dennis Uhl & Co.....	Stable provender	57 00
416.	Philip Voorhees	Furniture	174 00
417.	Lusky, White & Coolidge.....	Hardware	4 37
418.	H. Kohnstamm & Co.....	Laundry supplies	43 35
419.	Wm. B. Burford.....	Stationery	170 68
420.	W. E. Foy.....	Stabling team	3 50
421.	The Seybold Dry Goods Co.....	Dry goods	21 99
422.	The Grasselli Chemical Co.....	Chemicals	13 63
423.	Alfred Seybold	Shredding corn	7 65
424.	C. H. Rhoads	Hauling fodder	3 50
425.	Wm. Dietrich	Hauling fodder	3 50
426.	Daniel Terfingler	Eggs	37 20
427.	Thomas Meyer	Harness supplies	7 15
428.	Geo. A. Schaefer.....	Horseshoeing	13 65
429.	W. B. Schwalm.....	Hardware	22 40
430.	Snider & Alber.....	Flower pots	4 98
431.	Standard Oil Co.....	Lubricants	74 80
432.	H. Wiler & Co.....	House furnishings	110 20
433.	The Journal of N. and M. Diseases.	Subscription	5 00
434.	The H. Lieber Co.....	Film service	30 00
435.	Meinecke & Co.....	Druggists' sundries	10 77
436.	The Phoenix Oil Co.....	Oil soap	30 18
437.	Petaluma Incubator Co.....	Eggs	7 00
438.	Morrill & Morley.....	Hose	9 50
439.	James H. Rhoads & Co.....	Calcium chloride	9 06
440.	The Tatem Label Co.....	Labels	4 00
441.	John Kesling	Mules	500 00
442.	Logansport Home Telephone Co...	Rent and toll	30 45
443.	Western Union Telegraph Co.....	Telegrams	13 09
444.	Adams Express Co.....	Expressage	9 02
445.	Pacific Express Co.....	Expressage	2 75
446.	Louthain & Barnes.....	Advertising	2 00
447.	The Chronicle	Advertising	2 00
448.	Chas. W. Slick.....	Trustee	95 90
449.	Warren T. McCray.....	Trustee	83 90
450.	Wm. A. Morris.....	Trustee	79 25
451.	W. G. Zahrt.....	Trustee	79 75
452.	F. W. Terfingler.....	Traveling expense	30 90
453.	Indiana Coal & Fuel Co.....	Coal	549 78
454.	E. M. Hoyt, Cashier.....	Freight	647 00
455.	Fred W. Terfingler, Med. Supt.....	Officers' payroll	1,023 33
456.	Fred W. Terfingler, Med. Supt.....	Employees' payroll	4,843 48
457.	Fred W. Terfingler, Med. Supt.....	Contingent fund payments...	75 53
458.	Armour & Co.....	Meats	917 55

EXHIBIT No. 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
459.	Swift & Co.....	Meats	\$423 03
460.	Morris & Co.....	Meats	887 92
461.	Major Bros. Packing Co.....	Meats	57 24
462.	W. C. Routh & Co.....	Meats	132 45
463.	McDowell Bros.....	Meats	7 96
464.	Reid, Murdoch & Co.....	Groceries	80 03
465.	Elliott Grocery Co.....	Groceries	86 70
466.	Sprague, Warner & Co.....	Groceries	4 78
467.	Progress Wholesale Grocery Co...	Groceries	140 28
468.	Boerger Bros.	Groceries'	39 90
469.	Perfection Biscuit Co.....	Groceries	42 71
470.	The Fleischmann Co.....	Yeast	10 83
471.	E. N. Tuttle.....	Tobacco	435 75
472.	The Capital City Dairy Co.....	Butterine	585 90
473.	Frank S. Betz Co.....	Druggists' sundries	3 42
474.	Meinecke & Co.....	Druggists' sundries	4 10
475.	Schering & Glatz.....	Drugs	3 32
476.	VanHorn & Sawtell.....	Druggists' sundries	3 93
477.	Harry C. Tritt	Drugs	8 80
478.	C. A. Eberlein.....	Galvanized iron work	112 01
479.	Flanegin Hardware Co.....	Hardware	33 77
480.	Rice Hardware Co.....	Hardware	206 18
481.	S. W. Ullery & Son.....	Hardware	10 06
482.	The Thompson & Chute Soap Co...	Soap	275 95
483.	Rhoads & Fillman	Dry goods	91 97
484.	The Seybold Dry Goods Co.....	Dry goods	68 74
485.	The John H. Hibben Dry G'ds Co.	Dry goods	152 08
486.	Indiana Reformatory	Whisk brooms	12 50
487.	H. Kohnstamm & Co.....	Laundry supplies	15 12
488.	Thomas Meyer	Harness supplies	14 80
489.	Mills Electric Co.....	Electrical supplies	61 57
490.	Standard Oil Co.....	Oils	69 19
491.	Geo. A. Schaefer	Horseshoeing	8 75
492.	Vaughan's Seed Store	Plants	16 80
493.	The Longwell-Cummings Co.....	Stationery	5 61
494.	Metropolitan Air Goods Co.....	Patching air mattress.....	5 50
495.	The "Sanitas" Co.....	Soap	34 00
496.	Henry Vogt Machine Co.....	Hand wheel for ice hoist.....	7 33
497.	Vonnegut Hardware Co.....	Mattress twine	14 90
498.	Wiler & Wise.....	Housekeeping supplies	1 50
499.	The Brecht Co.....	Meat block	35 00
500.	The National Ammonia Co.....	Ammonia	60 64
501.	The F. Bissell Co.....	Electrical supplies	7 65
502.	Gerts, Lombard & Co.....	Brushes	3 60
503.	The Garlock Packing Co.....	Packing	33 39
504.	The Cudahy Packing Co.....	Soda	30 63
505.	The Corkins Chemical Co.....	Insecticide	20 00
506.	Barbee Wire & Iron Works.....	Wire baskets	16 40
507.	Bridgeport Nurseries	Trees	12 00
508.	The Armour Curled Hair Works...	Mattress hair	265 80
509.	Wm. B. Burford.....	Stationery	239 81
510.	The H. Lieber Co.....	Film service	24 00
511.	Logansport Carriage Works.....	Blacksmithing	3 50
512.	McDowell Bros.	Corn planter and harrow...	73 00
513.	Peter VanSchaack & Sons.....	Sponges	23 28
514.	Dennis Uhl & Co.....	Oats	10 00
515.	Bramhall Range Co.....	Range parts	11 16
516.	D. Hill	Shrubbery	34 50

EXHIBIT No. 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
517.	The Logansport Tribune Co.....	Advertising	\$3 10
518.	The Journal Corporation Co.....	Advertising	5 30
519.	The Chronicle	Advertising	2 00
520.	Daily Reporter	Advertising	6 00
521.	Louthain & Barnes.....	Advertising	5 00
522.	C. O. Fenton	Advertising	2 00
523.	The Western Union Telegraph Co..	Telegrams	9 20
524.	Adams Express Co.....	Expressage	7 35
525.	Pacific Express Co.....	Expressage	4 60
526.	The Superior Portland Cement Co..	Cement	124 05
527.	Indiana Coal and Fuel Co.....	Coal	306 60
528.	E. M. Hoyt, Cashier.....	Freight	622 02
529.	Fred W. Terflinger, Med. Supt....	Officers' payroll	1,023 33
530.	Fred W. Terflinger, Med. Supt....	Employees' payroll	4,926 43
531.	Fred W. Terflinger, Med. Supt....	Mechanics' payroll	283 85
532.	Fred W. Terflinger, Med. Supt....	Contingent fund payments...	195 99
533.	Armour & Co.....	Meats	477 56
534.	Swift & Co.....	Meats	492 46
535.	Morris & Co.....	Meats	446 82
536.	Major Brothers Packing Co.....	Meats	43 07
537.	W. C. Routh & Co.....	Meats	98 29
538.	McDowell Bros.	Meats	4 55
539.	The Capital City Dairy Co.....	Butterine	585 90
540.	Loughrey Bros. Mill. & Grain Co..	Flour	2,443 08
541.	Reid, Murdoch & Co.....	Groceries	74 50
542.	Sprague, Warner & Co.....	Groceries	294 90
543.	Elliott Grocery Co.....	Groceries	963 02
544.	Progress Wholesale Grocery Co....	Groceries	151 79
545.	Boerger Bros.	Groceries	30 25
546.	Perfection Biscuit Co.....	Groceries	38 77
547.	The Fleischmann Co.....	Yeast	10 50
548.	Parke, Davis & Co.....	Gentian cordial	45 00
549.	Pitman-Myers Co.	Drugs	70 54
550.	Harry C. Tritt	Drugs and painters' supplies.	11 35
551.	The John H. Hibben Dry G'ds Co..	Dry goods	304 53
552.	The Seybold Dry Goods Co.....	Dry goods	64 15
553.	The West End Pottery Co.....	Queensware	21 21
554.	Indiana Reformatory	Brooms	115 20
555.	Logansport Basket Works.....	Baskets	4 20
556.	The Grasselli Chemical Co.....	Arsenate of lead	5 13
557.	W. E. Foy	Stabling team, and harness oil	3 20
558.	W. L. Fernald	Lumber	10 14
559.	C. A. Eberlein.....	Tinware and kitchen equipmt.	12 22
560.	Electric Wheel Co.....	Wagon	32 90
561.	I. N. Crawford	Hardware	7 20
562.	Colonial Fireplace Co.....	Grate screens and backs ...	22 84
563.	Bishop Elevator Co.....	Oats	11 20
564.	The W. Bingham Co.....	Street cleaners' cart	5 00
565.	M. F. Bligh	Lath and screen wire	3 50
566.	Sive & Berman	Baseball supplies	62 30
567.	Frank S. Betz Co.....	Druggists' sundries	3 15
568.	Dodge Mfg. Co.....	Wood pulleys	3 20
569.	Rice Hardware Co.....	Hardware	58 05
570.	Flanegin Hardware Co.....	Hardware	98 60
571.	Thomas Meyer	Harness supplies	0 00
572.	C. L. Dilley Co.....	Chicken feed	34 15
573.	Geo. W. Cann & Co.....	Electrical supplies	18 15
574.	The H. Lieber Co.....	Film service	12 00

EXHIBIT No. 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
575.	The Elk's Band.....	Concert	\$21 90
576.	The Thompson & Chute Soap Co...	Laundry soap	407 57
577.	Dennis Uhl & Co.....	Oats and bran	36 40
578.	Snider & Alber	Queensware	44 01
579.	H. Wiler & Co.....	House furnishings	76 36
580.	Standard Oil Co.....	Coal oil and lubricants	80 03
581.	Buffalo Specialty Co.....	Bread cutter	16 20
582.	The Ransom & Randolph Co.....	Dental equipment	366 75
583.	The American Cabinet Co.....	Vulcanite bench	18 00
584.	Dennison Mfg. Co.....	Housekeeping supplies	6 05
585.	Crane Co.	Tools	3 02
586.	The Garlock Packing Co.....	Packing	2 44
587.	Eberhardt Commission Co.....	Hops	383 73
588.	H. D. Schaefer.....	Rugs	11 50
589.	The Sanitas Co.....	Disinfectant	68 40
590.	Geo. A. Schaefer	Horseshoeing	11 25
591.	Vonnegut Hardware Co.....	House furnishings	9 30
592.	Vaughan's Seed Store	Sugar cane	8 00
593.	Mills Electric Co.....	Electrical supplies	3 20
594.	Meinecke & Co.....	Druggists' sundries	11 81
595.	E. Neff & Co.....	Stationery	9 60
596.	The Longwell-Cummings Co.....	Bookbinding	33 90
597.	Geo. M. Hadley	Furniture	5 00
598.	Harvey Publishing Co.....	Medical book	3 00
599.	C. O. Fenton	Advertising	9 75
600.	The Chronicle	Advertising	2 00
601.	The Logansport Tribune Co.....	Advertising	2 20
602.	Daily Reporter	Advertising	1 40
603.	Isley, Doubleday & Co.....	Plumbagoine	2 50
604.	Dr. J. B. Kingery.....	Veterinary services	2 00
605.	Logansport Carriage Works	New shafts	4 50
606.	C. W. Graves	Stationery	9 83
607.	Fred W. Terfingler.....	Traveling expenses	13 00
608.	Adams Express Co.....	Expressage	4 25
609.	The Western Union Telegraph Co.	Telegrams	8 04
610.	E. M. Hoyt, Cashier.....	Freight	18 24
611.	F. W. Terfingler, Med. Supt.....	Officers' payroll	1,001 67
612.	F. W. Terfingler, Med. Supt.....	Employees' payroll	4,901 62
613.	F. W. Terfingler, Med. Supt.....	Mechanics' payroll	155 10
614.	F. W. Terfingler, Med. Supt.....	Contingent fund payments...	105 27
615.	Armour & Co.....	Meats	584 42
616.	Swift & Co.....	Meats	400 26
617.	Morris & Co.....	Meats	671 84
618.	Major Bros. Packing Co.....	Meats	53 88
619.	W. C. Routh & Co.....	Meats	150 08
620.	McDowell Bros.	Meats and implements	4 84
621.	The Capital City Dairy Co.....	Butterine	460 35
622.	Reid, Murdoch & Co.....	Groceries	777 81
623.	Sprague, Warner & Co.....	Groceries	219 60
624.	Franklin MacVeagh & Co.....	Groceries	70 69
625.	Elliott Grocery Co.....	Groceries	86 25
626.	John B. Bright & Son	Groceries	510 45
627.	Boerger Bros.	Groceries	18 30
628.	Perfection Biscuit Co.....	Groceries	32 72
629.	The Fleischmann Co.....	Yeast	8 40
630.	Harry C. Tritt.....	Drugs	22 97
631.	Pitman-Myers Co.	Drugs	10 08
632.	Deane Plaster Co.....	Druggists' sundries	22 50

EXHIBIT No. 3—Continued.

No.	To Whom Paid.	On Account of.	Amount.
633.	Wiler & Wise.....	Housekeeping supplies	\$26 15
634.	The Seybold Dry Goods Co.....	Housekeeping supplies	207 29
635.	George Wyman & Co.....	House furnishings	233 43
636.	Wm. B. Burford	Stationery	37 30
637.	The Casparis Stone Co.....	Stone screenings	41 84
638.	The Corkins Co.....	Chemicals	40 00
639.	Poehlman Bros.	Plants	24 00
640.	Bateman Mfg. Co.....	Castings	3 75
641.	The Babcock & Wilcox Co.....	Valves	16 20
642.	The A. Burdsal Co.....	Painters' supplies	15 80
643.	G. Caruso	Lemons	6 50
644.	The Albert Dickinson Co.....	Fruit	9 09
645.	The Grasselli Chemical Co.....	Chemicals	8 50
646.	The Johns Hopkins Press.....	Subscription	5 00
647.	Indiana Indestructible Paint Co...	Paint	7 00
648.	The Kny-Scheerer Co.....	Druggists' sundries	14 40
649.	H. Kohnstamm & Co.....	Laundry supplies	13 75
650.	Harry Lux	Typewriter car'ge. and ribbon	20 85
651.	S. W. Ullery & Son.....	Tools	3 08
652.	Standard Oil Co.....	Oils and lubricants	77 50
653.	Thomas Meyer	Harness supplies	2 50
654.	C. W. Graves	Housekeeping supplies	12 68
655.	C. L. Dilley & Co.....	Stable provender and drains..	70 10
656.	Mrs. W. M. Herriott & Son.....	Druggists' sundries	153 58
657.	The Ransom & Randolph Co.....	Druggists' sundries	6 00
658.	The Sailor Brothers Co.....	Furniture	126 00
659.	Rice Hardware Co.....	Hardware	38 65
660.	Flanegin Hardware Co.....	Hardware	13 92
661.	Dennis Uhl & Co.....	Stable provender	5 69
662.	Vaughan's Seed Store.....	Plants	11 76
663.	Geo. A. Schaefer	Horseshoeing	12 55
664.	Peter VanSchaack & Sons.....	Housekeeping supplies	24 00
665.	United States Rattan Co.....	Reeds	32 55
666.	Meinecke & Co.....	Rubber blankets	171 00
667.	The F. Bissell Co.....	Electrical supplies	103 48
668.	Geo. W. Cann & Co.....	Electrical supplies	58 66
669.	The Phoenix Oil Co.....	Cleaning material	29 76
670.	James H. Rhoads & Co.....	Chemicals	6 24
671.	The Reed Mfg. Co.....	House furnishings	74 78
672.	Barbee Wire and Iron Works.....	Wire window guards	35 25
673.	Parker & Johnson	Lumber	30 35
674.	The Elk's Band	Concert	21 90
675.	Saxophone Orchestra	Concert	7 30
676.	Chas. W. Slick	Trustee	187 95
677.	Wm. A. Morris	Trustee	79 25
678.	Warren T. McCray	Trustee	75 00
679.	W. G. Zahrt	Trustee	84 65
680.	Fred W. Terfingler	Traveling expenses	126 55
680½.	Fred W. Terfingler.....	Traveling expenses	81 70
681.	Logansport Home Telephone Co....	Telephone rent	31 40
682.	The Western Union Telegraph Co...	Telegrams	7 71
683.	Adams Express Co.....	Expressage	46 02
684.	Daily Reporter	Advertising	2 00
685.	Louthain & Barnes	Advertising	2 20
686.	The Logansport Chronicle.....	Advertising	4 00
687.	The Journal Corporation.....	Advertising	2 20
688.	E. M. Hoyt, Cashier.....	Freight	21 54
689.	F. W. Terfingler, Med. Supt.....	Officers' payroll	\$73 34

EXHIBIT No. 3—Continued.

No.	To Whom Paid.	On Account of.	Amount.
690.	F. W. Terflinger, Med. Supt.....	Employees' payroll	\$5,437 23
691.	F. W. Terflinger, Med. Supt.....	Contingent fund payments...	97 04
692.	Armour & Co.....	Meats	835 16
693.	Swift & Co.....	Meats	215 30
694.	Morris & Co.....	Meats	542 76
695.	McDowell Bros.	Meats	4 23
696.	The Capital City Dairy Co.....	Butterine	585 90
697.	The Fleischmann Co.....	Yeast	10 00
698.	Beyer Bros. Co.....	Eggs	147 90
699.	Reid, Murdoch & Co.....	Groceries	39 63
700.	Sprague, Warner & Co.....	Groceries	121 73
701.	The Elliott Grocery Co.....	Groceries	710 12
702.	Boerger Bros.	Groceries	24 45
703.	Perfection Biscuit Co.....	Groceries	34 97
704.	G. Caruso & Co.....	Groceries	24 00
705.	Snider & Alber	Tableware	91 68
706.	The Seybold Dry Goods Co.....	Dry goods	143 34
707.	Rhoads & Fillman	Dry goods	487 41
708.	The John H. Hibben Dry G'ds Co..	Dry goods	241 09
709.	Pitman-Myers Co.	Drugs	73 49
710.	Harry C. Tritt	Drugs	12 48
711.	Rice Hardware Co.....	Hardware	53 52
712.	Flanegin Hardware Co.....	Hardware	4 38
713.	Dennis Uhl & Co.....	Provender	338 60
714.	Mrs. W. M. Herriott & Son.....	Dentists' supplies	41 07
715.	Daniel Terflinger	Eggs	24 60
716.	The Linen Thread Co.....	Housekeeping supplies	31 68
717.	H. Kohnstamm & Co.....	Laundry supplies	15 12
718.	W. L. Fernald	Lumber	2 28
719.	Fairbanks, Morse & Co.....	Truck	37 50
720.	Gertz, Lumbarb & Co.....	Shoe brushes	8 40
721.	The Garlock Packing Co.....	Packing	17 94
722.	Dan W. Erb	Piano tuning	20 75
723.	Homer Closson	Painters' supplies	1 60
724.	Cummings & Viney	Wood wool	3 51
725.	Brunswick-Balke-Collender Co....	Billard supplies	3 45
726.	The American Laundry Mach. Co..	Laundry supplies	22 40
727.	The Columbus Varnish Co.....	Painters' supplies	4 50
728.	A. Meinecke & Son.....	Laundry supplies	78 12
729.	Crescent Paper Co.....	Toilet paper	48 60
730.	Efner Fly Trap Co.....	Fly traps	42 00
731.	Poehlmann Bros. Co.....	Plants	4 50
732.	W. S. Stalnaker.....	Cement posts	35 15
733.	Citizens' Band	Concert	22 00
734.	Warren T. McCray	Trustee	9 65
735.	Standard Oil Co.....	Oils and lubricants	70 69
736.	Geo. A. Schaefer	Horseshoeing	16 80
737.	Logansport Carriage Works.....	Blacksmithing	21 40
738.	L. Wolff Mfg. Co.....	Plumbing material	3 36
739.	Thomas Meyer	Harness supplies	8 00
740.	Vaughan's Seed Store	Plants	38 50
741.	Indiana Coal & Fuel Co.....	Coal	336 48
742.	Charles Chambers	Hay	536 28
743.	V. P. Chambers	Hay	470 50
744.	Richard Chambers	Hay	426 30
745.	Asa Shideler	Hay	406 87
746.	Samuel Chambers	Hay	214 20
747.	D. C. Purdue	Hay	158 70

EXHIBIT No. 3—Continued.

No.	To Whom Paid.	On Account of.	Amount.
748.	Chas. H. Rhoads.....	Hay	\$132 75
749.	Wm. Powell	Hay	89 78
750.	Wm. Dietrich	Hay	51 53
751.	The Logansport Tribune Co.....	Advertising	4 65
752.	Daily Reporter	Advertising	2 00
753.	Louthain & Barnes	Advertising	2 00
754.	The Logansport Chronicle	Advertising	2 00
755.	The Journal Corporation	Advertising	2 00
756.	The Western Union Telegraph Co..	Telegrams	10 27
757.	Adams Express Co.....	Expressage	2 80
758.	E. M. Hoyt, Cashier.....	Freight	513 10
759.	Fred W. Terfingler, Med. Supt.....	Officers' payroll	933 34
760.	Fred W. Terfingler, Med. Supt.....	Employees' payroll	5,447 30
761.	Fred W. Terfingler, Med. Supt.....	Contingent fund payments...	368 02
762.	Armour & Co.....	Meat	802 85
763.	Swift & Co.....	Meat	253 19
764.	Morris & Co.....	Meat	1,003 69
765.	Major Bros. Packing Co.....	Meat	242 14
766.	W. C. Routh & Co.....	Meat	55 70
767.	McDowell Bros.	Meat	4 13
768.	The Capital City Dairy Co.....	Butterine	713 00
769.	The Fleischmann Co.....	Yeast	10 25
770.	Franklin MacVaugh & Co.....	Groceries	22 20
771.	Sprague, Warner & Co.....	Groceries	96 31
772.	Elliott Grocery Co.....	Groceries	185 39
773.	Boerger Bros.	Groceries	24 50
774.	Standard Oil Co.....	Oils	85 00
775.	Snider & Alber.....	Tableware	82 02
776.	Rhoads & Fillman	Dry goods	12 25
777.	Wiler & Wise.....	Dry goods	11 08
778.	H. Wiler & Co.....	Housekeeping supplies	16 05
779.	The Western Motor Co.....	Castings	35 96
780.	C. A. Eberlein	Galvanized iron work.....	14 55
781.	Rice Hardware Co.....	Hardware	38 13
782.	Flanegin Hardware Co.....	Hardware	6 50
783.	Beyer Bros. Co.....	Eggs	120 00
784.	Parke, Davis & Co.....	Medicine	45 00
785.	Pitman-Myers Co.	Medicine	24 66
786.	Harry C. Tritt.....	Druggists' sundries	22 74
787.	Edgar A. Murray Co.....	Insecticide	25 00
788.	Geo. W. Cann & Co.....	Electrical supplies	3 35
789.	Burdett-Rowntree Mfg. Co.....	Electrical supplies	71 29
790.	Bishop Elevator Co.....	Rye	24 57
791.	Dennis Uhl & Co.....	Screenings	48 00
792.	Richard Chambers	Straw	47 76
793.	Andrew Hedde	Straw	45 72
794.	Clay Jamison	Straw	19 50
795.	A. J. Paul	Straw	15 76
796.	V. P. Chambers.....	Straw	108 88
797.	Mrs. Murphy	Oats	85 80
798.	Logansport Tribune Co.....	Advertising	2 00
799.	Louthain & Barnes.....	Advertising	2 00
800.	The Journal Corporation	Advertising	2 00
801.	The Logansport Chronicle.....	Advertising and subscription.	5 75
802.	L. Wolff Mfg. Co.....	Plumbing material	1 70
803.	Lea & Febiger	Books	9 25
804.	John Wiley & Sons	Books	2 50
805.	The Southworth Co.....	Books	11 50

EXHIBIT No. 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
806.	John Tam	Melons	85 08
807.	Indiana Lighting Co.	Coke	125 58
808.	W. I. Shearer Ice Cream Co.	Ice cream	8 66
809.	Crandall Packing Co.	Gage glasses	10 08
810.	The Chicago Store	Base balls	11 00
811.	General Film Co.	Film service	12 00
812.	The H. Lieber Co.	Film service	18 00
813.	Kroeger & Winquist	Undertaking	10 00
814.	The Longwell-Cummings Co.	Blotters	1 00
815.	Logansport Carriage Works.	Blacksmithing	1 95
816.	H. Kohnstamm & Co.	Laundry supplies	15 44
817.	Poehlman Bros.	Plants	15 00
818.	The A. Burdsal Co.	Painters' supplies	37 07
819.	Geo. A. Schaefer	Horseshoeing	4 65
820.	The Western Union Telegraph Co.	Telegrams	7 10
821.	Adams Express Co.	Expressage	9 66
822.	Singer Sewing Machine Co.	Shuttle	1 00
823.	Thomas Meyer	Harness supplies	1 40
824.	Mrs. W. M. Herriott & Son.	Dentists' supplies	4 82
825.	E. M. Hoyt, Cashier.	Freight	10 89
826.	Fred W. Terflinger, Med. Supt.	Officers' payroll	933 34
827.	Fred W. Terflinger, Med. Supt.	Employees' payroll	5,410 92
828.	Armour & Co.	Meats	818 48
829.	Swift & Co.	Meats	187 98
830.	Morris & Co.	Meats	388 21
831.	Major Bros. Packing Co.	Meats	37 44
832.	McDowell Bros.	Meats	4 50
833.	Sprague, Warner & Co.	Groceries	57 00
834.	Franklin MacVeagh & Co.	Groceries	26 00
835.	Elliott Grocery Co.	Groceries	156 50
836.	Boerger Bros.	Groceries	20 35
837.	Charles H. Rhoads.	Butter	24 60
838.	The Capital City Dairy Co.	Butter	1 55
839.	L. B. Horn.	Potatoes	214 33
840.	Beyer Bros. Co.	Eggs	207 00
841.	Perfection Biscuit Co.	Crackers	39 23
842.	C. A. Eberlein	Soldering tomato cans.	12 50
843.	Detroit Stoker Co.	Stoker parts	97 64
844.	Rice Hardware Co.	Hardware	44 31
845.	Flanegin Hardware Co.	Hardware	24 67
846.	Crandall Packing Co.	Packing	20 83
847.	Clark & Co.	Tobacco	120 96
848.	Parker & Johnston.	Lumber	30 00
849.	L. S. Ayres & Co.	Furniture	52 25
850.	Brunswick-Balke-Collender Co.	Pool table supplies.	20 15
851.	The Babcock & Wilcox Co.	Boiler tubes	144 92
852.	H. Wiler & Co.	House furnishings	29 26
853.	Snider & Alber	Tableware	7 00
854.	Beardslee Chandelier Co.	Electrical supplies	105 85
855.	The Thompson & Chute Soap Co.	Chip soap	5 55
856.	Dennis Uhl & Co.	Screenings	15 60
857.	The Santa Clara Co.	Olive Oil	22 50
858.	J. I. Holcomb Mfg. Co.	Brushes	58 95
859.	The Perolin Company of America.	Paint	73 75
860.	The Powhatan Coal Co.	Coal	15 86
861.	Hal B. Smith & Co.	Clocks	7 75
862.	Henry Vogt Machine Co.	Union for ammonia pump.	1 00
863.	H. D. Schaefer	Rugs	5 50

EXHIBIT No. 3—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
864.	P. F. Collier & Son.....	Books	\$39 00
865.	W. K. Stewart Co.....	Books	63 00
866.	Scientific American Comp. Dept....	Books	16 00
867.	Singer Sewing Machine Co.....	Sewing machine	82 00
868.	The Seybold Dry Goods Co.....	House furnishings	6 00
869.	Geo. A. Schaefer	Horseshoeing	3 75
870.	Standard Oil Co.....	Oils	74 62
871.	Peter VanSchaack & Sons.....	Sponges	19 40
872.	Marshall Field & Co.....	Furniture	64 50
873.	Mrs. W. M. Herriott & Son.....	Dental supplies	21 31
874.	Thomas Meyer	Harness	2 50
875.	The National Ammonia Co.....	Ammonia	26 52
876.	The H. Lieber Co.....	Picture frame	17 00
877.	H. Kohnstamm & Co.....	Laundry supplies	1 15
878.	Dr. J. B. Kingery	Veterinary services	23 00
879.	Colyn Bros.	Bulbs	96 00
880.	General Film Co.....	Film service	24 00
881.	C. W. Graves	Lantern slide material.....	11 70
882.	Gerts, Lombard & Co.....	Brushes	16 20
883.	Logansport Carriage Works	Grinding knives for cutter..	3 00
884.	Frank S. Betz Co.....	Druggists' sundries	12 00
885.	The F. Bissell Co.....	Electrical supplies	69 84
886.	The E. W. Ross Co.....	Ensilage cutter parts	6 83
887.	Millcreek Distilling Co.....	Alcohol	27 54
888.	Harry C. Tritt	Painters' supplies	32 97
889.	Pitman-Myers Co.	Drugs	31 83
890.	The American Laundry Mach. Co..	Washing machine parts.....	11 52
891.	Wm. B. Burford	Stationery	243 12
892.	C. O. Fenton	Advertising	8 00
893.	Daily Reporter	Advertising	4 00
894.	Logansport Tribune Co.....	Advertising	2 00
895.	The Logansport Chronicle	Advertising	2 00
896.	The Journal Corporation	Advertising	2 00
897.	Louthain & Barnes	Advertising	2 00
898.	McDowell Bros.	Wheat drill	82 50
899.	Pontiac State Hospital	Livestock	400 00
900.	Rev. J. H. Craig.....	Chaplain	5 00
901.	Dan W. Erb	Organist	2 00
902.	Henry Monigan	Electric lamps	2 20
903.	Chas. W. Slick	Trustee	104 93
904.	Warren T. McCray	Trustee	84 20
905.	M. Epstein	Trustee	80 60
906.	Fred W. Terfinger.....	Traveling expenses	56 14
907.	A. W. Gamble	Traveling expenses	3 50
908.	Clay Jamison	Oats	61 75
909.	Logansport Home Telephone Co....	Telephone	11 95
910.	Central Union Telephone Co.....	Telephone	5 30
911.	Adams Express Co.....	Expressage	11 78
912.	Spencer Transfer & Storage Co....	Draying	1 00
913.	Otto Burkhart	Hauling corn for ensilage....	13 13
914.	Jacob Minneman	Hauling corn for ensilage....	15 75
915.	Loyd Copeland	Cutting ensilage	9 00
916.	Alfred Seybold	Cutting ensilage	22 50
917.	Andrew Hedde	Cutting ensilage	22 75
918.	Chas G. Wagner	Books	5 00
919.	Chas. H. Rhoads	Hauling corn for ensilage....	22 75
920.	A. C. Naylor	Freight	1 10
921.	I. U. Traction Co.....	Freight	2 50

EXHIBIT No. 3—Continued.

No.	To Whom Paid.	On Account of.	Amount.
922.	E. M. Hoyt, Cashier.....	Freight	\$17 48
923.	John M. Johnston	Stamps	17 82
924.	J. A. Fay & Egan Co.....	Machines for carpenter shop.	620 00
925.	Chas. D. Wellington	Deer	200 00
926.	W. G. Zahrt	Trustee	75 00
Total			\$176,323 13
Less contingent fund heretofore drawn.....			1,000 00
Total			\$175,323 13
Appropriation fixed			\$162,000 00
Appropriation on account of increase of population over 900			13,976 61
			<hr/> \$175,976 61
Disbursements			175,323 13
			<hr/>
Balance covered into State Treasury.....			\$653 48

EXHIBIT No. 4.

*Being a List of Disbursements on Account of Clothing for the Fiscal Year
Ending September 30, 1911.*

No.	To Whom Paid.	On Account of.	Amount.
1.	Fred W. Terfingler, Med. Supt.....	Payroll	\$196 97
2.	Rhoads & Fillman	Clothing	290 36
3.	The John H. Hibben Dry G'ds Co..	Dry goods	270 26
4.	The Otto Shoe and Clothing Co..	Underwear	212 00
5.	The Seybold Dry Goods Co.....	Underwear	120 09
6.	W. M. Graffis	Boots	17 00
7.	Helvie & Sellers	Gloves	10 00
8.	Indiana Reformatory	Shoes	180 00
9.	Hooley & Tucker	Trouser hooks and eyes.....	1 50
10.	Singer Sewing Machine Co.....	Sewing room supplies	4 85
11.	Fred W. Terfingler, Med. Supt.....	Payroll	194 40
12.	Rhoads & Fillman.....	Dry goods	376 98
13.	Mishawaka Woolen Mfg. Co.....	Felt boots	145 26
14.	Helvie & Sellers.....	Men's gloves	12 00
15.	W. M. Graffis	Shoes	6 50
16.	E. M. Hoyt, Cashier	Freight	1 03
17.	Fred W. Terfingler, Med. Supt.....	Payroll	220 00
18.	Rhoads & Fillman	Dry goods	126 60
19.	The Seybold Dry Goods Co.....	Dry goods	98 37
20.	The John H. Hibben Dry G'ds Co..	Dry goods	18 19
21.	W. M. Graffis	Rubber boots	12 75
22.	Singer Sewing Machine Co.....	Sewing room supplies.....	41 30
23.	Fred W. Terfingler, Med. Supt.....	Payroll	221 00
24.	The Seybold Dry Goods Co.....	Dry goods	179 24
25.	Rhoads & Fillman.....	Dry goods	138 00
26.	The John H. Hibben Dry G'ds Co..	Dry goods	128 23
27.	Elliott Grocery Co.....	Leather mitts	40 00
28.	Indiana Reformatory	Men's shoes	115 20
29.	Joseph Taylor & Sons.....	Shoemakers' supplies	21 82

EXHIBIT No. 4—Continued.

No.	To Whom Paid.	On Account of.	Amount.
30.	Fred W. Terflinger, Med. Supt.	Payroll	\$217 00
31.	Indiana Reformatory	Dry goods	1,145 20
32.	The Seybold Dry Goods Co.	Dry goods	172 37
33.	Helvie & Sellers	Men's gloves	24 00
34.	The John H. Hibben Dry G'ds Co.	Dry goods	16 80
35.	W. M. Graffis	Rubber boots	4 25
36.	F. W. Terflinger, Med. Supt.	Payroll	203 37
37.	Indiana Reformatory	Clothing	372 80
37½.	John V. Farwell Co.	Dry goods	42 56
38.	The Seybold Dry Goods Co.	Dry goods	39 36
39.	The John H. Hibben Dry G'ds Co.	Dry goods	19 29
40.	W. M. Graffis	Boots	5 25
41.	Fred W. Terflinger, Med. Supt.	Payroll	190 20
42.	Rhoads & Fillman	Dry goods	144 04
43.	Joseph Taylor & Sons	Shoemakers' supplies	14 90
44.	Fred W. Terflinger, Med. Supt.	Sewing room payroll	190 96
45.	The John H. Hibben Dry G'ds Co.	Dry goods	38 02
46.	The Seybold Dry Goods Co.	Dry goods	3 41
47.	W. M. Graffis	Rubber boots	12 75
48.	Sears, Roebuck & Co.	Sewing room supplies	3 00
49.	Fred W. Terflinger, Med. Supt.	Sewing room payroll	198 70
50.	Adda Benjamin	Hat	2 50
51.	W. M. Graffis	Shoes	2 50
52.	Joseph Taylor & Sons	Shoemakers' supplies	17 91
53.	Indiana Reformatory	Men's shoes	13 40
54.	W. M. Graffis	Rubber boots	4 25
55.	W. M. Graffis	Slippers	1 00
Total			\$6,499 69
Appropriation			\$6,500 00
Disbursements			6,499 69
Balance covered into State Treasury			\$0 31

EXHIBIT No. 5.

*Being a List of Disbursements on Account of Repairs for the Fiscal Year
Ending September 30, 1911.*

No.	To Whom Paid.	On Account of.	Amount.
1.	Fred W. Terflinger, Med. Supt.	Payroll	\$356 00
2.	Fred W. Terflinger, Med. Supt.	Payroll	365 02
3.	The F. Bissel Co.	Electrical supplies	147 53
4.	C. B. Roads	Plumbing material	24 59
5.	Geo. W. Cann & Co.	Electrical supplies	20 00
6.	C. L. Dilley & Co.	Sewer pipe	154 45
7.	C. A. Eberlein	Galvanized iron work	75 52
8.	Rice Hardware Co.	Hardware	87 72
9.	The Sagax Wood Co.	Fireproof doors	24 00
10.	H. W. Johns-Manville Co.	Sectional conduit and filling	97 20
11.	Fairbanks, Morse & Co.	Repairing motor	171 35
12.	Bishop Elevator Co.	Tile	7 50

EXHIBIT No. 5—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
13.	The A. Burdsal Co.....	Paint	\$13 00
14.	Harry C. Tritt	Painters' supplies	9 77
15.	Mason Mfg. Co.....	Float for steam trap.....	1 30
16.	E. M. Hoyt, Cashier.....	Freight	14 22
17.	Fred W. Terfingler, Med. Supt.....	Payroll	358 00
18.	Fred W. Terfingler, Med. Supt.....	Payroll	312 60
19.	C. L. Dilley & Co.....	Cement and sewer pipe.....	157 60
20.	Rice Hardware Co.....	Hardware	16 42
21.	W. H. Porter & Co.....	Painters' supplies	50 40
22.	Harry C. Tritt	Painters' supplies	4 33
23.	The F. Bissell Co.....	Electrical supplies	45 99
24.	Mills Electric Co.....	Electrical supplies	23 18
25.	S. W. Ulery & Son.....	Hardware	20 44
26.	C. B. Roads.....	Plumbing material	5 13
27.	Crane Co.....	Dies	2 60
28.	C. A. Eberlein	Galvanized iron work	32 85
29.	The Beaver Co. of Buffalo.....	Lumber	2 80
30.	United States Encaustic Tile Co.....	Floor tile	12 07
31.	The Western Union Motor Co.....	Castings	6 66
32.	David Sailor	Teaming	113 80
33.	John Fahrner	Teaming	93 60
34.	Fred B. Porter	Teaming	42 50
35.	Chas. H. Rhoads	Teaming	8 75
36.	Fred W. Terfingler, Med. Supt.....	Payroll	358 00
37.	Fred W. Terfingler, Med. Supt.....	Payroll	214 60
38.	Mills Electric Co.....	Electrical supplies	45 21
39.	Jenkins Bros.	Steam and water fittings....	9 09
40.	Crane Co.....	Steam and water fittings....	27 28
41.	C. B. Roads	Steam and water fittings....	13 83
42.	I. N. Crawford	Hardware	19 37
43.	Rice Hardware Co.....	Hardware	30 55
44.	Indiana Indestructible Paint Co....	Paint	9 60
45.	The A. Burdsal Co.....	Paint	80 54
46.	The Columbus Varnish Co.....	Liquid wax	2 62
47.	Harry C. Tritt	Painters' supplies	10 18
48.	Patek Brothers	Painters' supplies	7 75
49.	C. L. Dilley Co.....	Cement and drains	32 11
50.	The Becker-Walters Paper Co.....	Wall paper	20 55
51.	Earl Hagenbuck	Wall paper	24 37
52.	M. F. Bligh	Lumber	5 00
53.	C. E. Morehead	Plastering	4 65
54.	E. M. Hoyt, Cashier.....	Freight	3 15
55.	Fred W. Terfingler, Med. Supt.....	Payroll	358 00
56.	Fred W. Terfingler, Med. Supt.....	Payroll	155 80
57.	Detroit Stoker Co.....	Stoker repairs	171 81
58.	C. B. Roads	Plumbing material	31 93
59.	The John J. Hildebrandt Co.....	Plumbing material	5 88
60.	American Radiator Co.....	Radiators	24 86
61.	Dennis Uhl & Co.....	Farm tile	60 59
62.	Bishop Elevator Co.....	Farm tile	22 20
63.	L. B. Hopkins Mantel and Tile Co....	Floor tile	10 55
64.	I. N. Crawford	Shovels and mattocks	32 90
65.	Crane Co.....	Plumbers' dies	17 25
66.	Standard Oil Co.....	Turpentine	11 25
67.	Geo. E. Watson Co.....	Brushes	17 19
68.	Harry C. Tritt	Painters' supplies	10 75
69.	Philip Voorhees	Lumber	26 40
70.	Parker & Johnston	Lumber	21 08

EXHIBIT No. 5—Continued.

No.	To Whom Paid.	On Account of.	Amount.
71.	Rice Hardware Co.....	Hardware	\$33 00
72.	S. W. Ullery & Son.....	Hardware	3 23
73.	Keenan Structural Slate Co.....	Slate	7 13
74.	E. M. Hoyt, Cashier.....	Freight	4 09
75.	Fred W. Terflinger, Med. Supt.....	Payroll	358 00
76.	Fred W. Terflinger, Med. Supt.....	Payroll	110 25
77.	James B. Clow & Sons.....	Plumbing material	48 07
78.	C. B. Roads	Plumbing material	15 92
79.	The John J. Hildebrandt Co.....	Plumbing material	8 88
80.	Rice Hardware Co.....	Hardware	40 65
81.	Geo. W. Cann & Co.....	Electrical supplies	19 34
82.	Dennis Uhl & Co.....	Drain tile	73 13
83.	Parker & Johnston	Lumber	58 50
84.	C. L. Dilley Co.....	Cement and drain tile	12 31
85.	S. W. Ullery & Son.....	Hardware	3 07
86.	The Yale & Towne Mfg. Co.....	Hardware	5 30
87.	E. M. Hoyt, Cashier.....	Freight	5 50
88.	Fred W. Terflinger, Med. Supt.....	Payroll	355 94
89.	Fred W. Terflinger, Med. Supt.....	Payroll	163 13
90.	The Casparis Stone Co.....	Stone screenings	79 65
91.	Rice Hardware Co.....	Hardware	11 85
92.	Colonial Fireplace Co.....	Mantel	35 50
93.	Becker-Walters Wall Paper Co....	Wall paper	26 00
94.	Jas. B. Clow & Sons.....	Plumbing material	14 14
95.	C. B. Roads	Plumbing material	16 64
96.	The A. Burdsal Co.....	Paints	9 67
97.	Geo. E. Watson Co.....	Paints	7 88
98.	Harry C. Tritt	Painters' supplies	11 98
99.	Detroit Stoker Co.....	Stoker parts	4 83
100.	Toledo Pipe Threading Machine Co.	Tools	3 97
101.	C. L. Dilley Co.....	Cement	1 50
102.	E. M. Hoyt, Cashier	Freight	48 64
103.	Fred W. Terflinger, Med. Supt.....	Payroll	300 00
104.	Fred W. Terflinger, Med. Supt.....	Payroll	159 30
105.	C. A. Eberlein	Roof repairs	72 76
106.	Parker & Johnston	Lumber	137 00
107.	C. B. Roads	Plumbing material	12 17
108.	Rice Hardware Co.....	Hardware	20 31
109.	Casparis Stone Co.....	Screenings	167 50
110.	Harry C. Tritt	Painters' supplies	15 54
111.	W. H. Porter & Co.....	Painters' supplies	47 32
112.	The Columbus Varnish Co.....	Painters' supplies	2 25
113.	C. L. Dilley Co.....	Cement	1 50
114.	E. M. Hoyt, Cashier.....	Freight	1 32
115.	Fred W. Terflinger, Med. Supt.....	Mechanics' payroll	275 44
116.	Mayer & Loewenstein	Painters' supplies	52 50
117.	The A. Burdsal Co.....	Painters' supplies	5 40
118.	Acme White Lead & Color Wks....	Painters' supplies	10 50
119.	Standard Oil Co.....	Painters' supplies	35 25
120.	C. B. Roads	Plumbing material	52 02
121.	Detroit Stoker Co.....	Stoker parts	142 95
122.	Parker & Johnston	Lumber	91 50
123.	The Yale & Towne Mfg. Co.....	Keys	14 64
124.	Henry Vogt Machine Co.....	Pump rod	8 75
125.	E. M. Hoyt, Cashier.....	Freight	5 72
126.	Fred W. Terflinger, Med. Supt.....	Mechanics' payroll	318 92
127.	James B. Clow & Son.....	Plumbing material	41 44
128.	C. B. Roads.....	Plumbing material	32 14

EXHIBIT No. 5—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
129.	The Western Motor Co.....	Iron castings	\$14 14
130.	The Babcock & Wilcox Co.....	Boiler tubes and brick	298 18
131.	Jas. B. Clow & Son.....	Plumbing material	40 80
132.	C. B. Roads	Plumbing material	17 86
138.	C. L. Dilley Co.....	Sewer pipe	8 10
134.	Barbee Wire and Iron Works.....	Hardware	4 50
135.	S. W. Ullery & Son.....	Hardware	3 15
136.	Parker & Johnston	Lumber	48 90
137.	M. F. Bligh	Lumber	5 76
138.	Wm. Sehrt	Repairing stoker engine	13 75
139.	Dodge Mfg. Co.....	Wood pulleys	2 20
140.	C. B. Roads	Plumbing material	6 98
141.	Chandler & Taylor	Repairs for engine	12 06
142.	Detroit Stoker Co.....	Stoker repairs	21 03
143.	W. H. Porter & Co.....	Painters' supplies	7 75
144.	H. Wiler & Co.....	Paper hanging	7 15
145.	Lilly & Stalnaker	Keys	12 00
146.	Rice Hardware Co.....	Fence	32 00
147.	E. M. Hoyt, Cashier	Freight	5 14
148.	The H. B. Smith Co.....	Radiator pins	10 53
Total			\$8,999 59
Appropriation			\$9,000 00
Disbursements			8,999 59
Balance covered into State Treasury.....			\$0 41

EXHIBIT No. 6.

Showing Disposition of Superintendent's Contingent Fund at Close of Fiscal Year Ending September 30, 1911.

Contingent Fund\$1,000.00

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
835.	Elliott Grocery Co.....	Groceries	\$156 50
836.	Boerger Bros.	Groceries	20 35
837.	Chas. H. Rhoads	Butter	24 60
840.	Beyer Bros. Co.....	Eggs	207 00
842.	C. A. Eberlein	Soldering tomato cans.....	12 50
844.	Rice Hardware Co.....	Hardware	44 31
845.	Flanagin Hardware Co.....	Hardware	24 67
856.	Dennis Uhl & Co.....	Screenings	15 60
899.	Pontiac State Hospital	Livestock	400 00
907.	A. W. Gamble	Traveling expenses	3 50
908.	Clay Jamison	Oats	61 75
910.	Central Union Telephone Co.....	Telephone	5 30
918.	Chas. G. Wagner	Books	5 00
920.	A. C. Naylor	Freight	1 10
923.	John M. Johnston	Stamps	17 82
Total			\$1,000 00

EXHIBIT No. 7.

Being a List of Disbursements on Account of Cold Storage for the Fiscal Year Ending September 30, 1911.

No.	To Whom Paid.	On Account of.	Amount.
1.	Fred W. Terfingler, Med. Supt.	Payroll	\$36 00
2.	H. W. Johns-Manville Co.	Insulating material	2,580 00
3.	M. F. Bligh	Lumber	33 42
4.	American Radiator Co.	Radiators	19 63
5.	Rice Hardware Co.	Hardware	14 28
6.	Geo. W. Cann & Co.	Electrical supplies	14 03
7.	Alfred Seybold	Hauling sand	6 00
8.	Fred W. Terfingler, Med. Supt.	Payroll	53 75
9.	U. S. Encaustic Tile Works	Floor tile	190 44
10.	C. L. Dille & Co.	Cement	45 00
11.	C. B. Roads	Plumbing material	9 99
12.	S. W. Ullery & Son	Hardware	5 50
13.	Logansport Carriage Works	Blacksmithing	2 00
14.	E. M. Hoyt, Cashier	Freight	9 28
15.	Fred W. Terfingler, Med. Supt.	Payroll	70 65
16.	Flanegin Hardware Co.	Hardware	67 08
17.	M. F. Bligh	Lumber	10 45
18.	Alfred Seybold	Hauling sand	4 50
19.	C. A. Eberlein	Galvanized iron work	4 42
20.	American Radiator Co.	Siphon air valves	2 64
21.	Fred W. Terfingler, Med. Supt.	Payroll	93 60
22.	W. E. McIlwain	Wages	31 00
23.	H. W. Johns-Manville Co.	Pipe covering	29 86
24.	Keenan Structural Slate Co.	Slate	14 25
25.	Philip Voorhees	Lumber	5 00
26.	E. M. Hoyt, Cashier	Freight	4 01
27.	C. B. Roads	Plumbing material	3 41
28.	Fred W. Terfingler, Med. Supt.	Payroll	42 00
29.	W. E. McIlwain	Wages	31 00
30.	The Albright-Nell Co.	Meat rack	40 50
31.	C. A. Eberlein	Galvanized iron work	13 46
32.	E. M. Hoyt, Cashier	Freight	1 63
33.	Illinois Pure Aluminum Co.	Kettle	135 00
34.	Fred W. Terfingler, Med. Supt.	Mechanics' payroll	49 00
35.	W. E. McIlwain	Wages	31 00
36.	Jas. B. Clow & Sons	Plumbing material	99 22
37.	C. B. Roads	Plumbing material	13 26
38.	S. W. Ullery & Son	Hardware	12 43
39.	Fred W. Terfingler, Med. Supt.	Payroll	87 60
40.	W. E. McIlwain	Wages	32 00
41.	Parker & Johnston	Lumber	180 20
42.	C. B. Roads	Plumbing material	2 49
43.	Barbee Wire and Iron Works	Iron stairways	245 00
43½.	C. B. Roads	Plumbing material	4 84
44.	C. A. Eberlein	Galvanized iron work	21 60
45.	Logansport Radiator Equip. Co.	Radiators	90 96
46.	Parker & Johnston	Lumber	32 50
47.	L. Wolff Mfg. Co.	Plumbing material	29 50
48.	C. B. Roads	Plumbing material	17 72
49.	Dodge Mfg. Co.	Wood pulleys	3 53
50.	Barbee Wire and Iron Works	Tread for stairway	2 25
51.	Burwanger & Murray	Conduit bushings	1 20
Total			\$4,580 08
Appropriation			\$8,100 00
Disbursements for fiscal year 1910			3,508 63
Balance available			\$4,591 37
Disbursements for fiscal year 1911			4,580 08
Balance covered into State Treasury			\$11 29

EXHIBIT No. 8.

*Being a List of Disbursements on Account of Laboratory, Mortuary and
Dispensary Building for the Fiscal Year Ending
September 30, 1911.*

No.	To Whom Paid.	On Account of.	Amount.
1.	Jas. B. Clow & Sons.....	Plumbing supplies	\$55 94
2.	American Radiator Co.....	Radiators	41 08
3.	E. M. Hoyt, Cashier	Freight	5 16
4.	Foltz & Parker	Architects' fees	60 00
5.	B. F. Barnes	Fourth estimate on contract	1,500 00
6.	B. F. Barnes	Fifth payment on contract	1,000 00
7.	C. B. Roads	Plumbing material	41 34
8.	E. M. Hoyt, Cashier	Freight	17 01
9.	Jas. B. Clow & Sons.....	Plumbing material	682 80
10.	American Radiator Co.....	Radiators	187 59
11.	E. M. Hoyt, Cashier.....	Freight	2 02
12.	Herbert Foltz	Architects' fees	118 71
13.	Benjamin F. Barnes	Final payment on contract	2,187 15
14.	Lilly & Stalnaker	Hardware	384 75
15.	James B. Clow & Sons.....	Plumbing material	206 97
16.	E. M. Hoyt, Cashier.....	Freight	2 48
17.	American Seating Co.....	Tablet arm chairs	151 20
Total			\$6,644 20
Appropriation			\$15,000 00
Disbursements for fiscal year 1910.....			8,353 34
Balance available			\$6,646 66
Disbursements for fiscal year 1911.....			6,644 20
Balance covered into State Treasury.....			\$2 46

EXHIBIT No. 9.

*Being a List of Disbursements on Account of Closet Annexes to Buildings
for the Fiscal Year Ending September 30, 1911.*

No.	To Whom Paid.	On Account of.	Amount.
1.	Fred W. Terflinger, Med. Supt.....	Payroll	\$71 00
2.	The Knapp Supply Co.....	Plumbing material	152 85
3.	Barbee Wire and Iron Works	Wire window guards	16 00
4.	Rice Hardware Co.....	Hardware	14 32
5.	M. F. Bligh	Lumber	4 34
6.	Rice Hardware Co.....	Locks and cylinders	68 00
7.	Philip Voorhees	Sash	104 00
8.	Rice Hardware Co.....	Glass	34 50
9.	Fred W. Terflinger, Med. Supt.....	Payroll	61 20
10.	Acme Hite Lead & Color Wks.....	Paint	181 33
11.	Fred W. Terflinger, Med. Supt.....	Payroll	103 83

EXHIBIT No. 9—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>On Account of.</i>	<i>Amount.</i>
12.	W. E. McIlwain	Wages	\$32 00
13.	Fred W. Terfinger, Med. Supt.	Mechanics' payroll	80 50
14.	W. E. McIlwain	Wages	32 00
15.	C. A. Eberlein	Galvanized iron work	35 00
16.	Geo. W. Cann & Co.	Electrical supplies	11 80
17.	C. B. Roads	Plumbing material	11 25
18.	S. W. Ullery & Son	Hardware	3 95
19.	W. H. Thompson	Wages	87 50
20.	W. E. McIlwain	Wages	32 00
21.	C. B. Roads	Plumbing material	41 87
22.	L. Wolff Mfg. Co.	Plumbing material	24 13
23.	S. W. Ullery & Son	Hardware	2 80
Total			\$1,206 17
Appropriation			6,340 00
Disbursements for fiscal year 1910			4,117 03
Balance available			\$2,222 97
Disbursements for fiscal year 1911			1,206 17
Balance covered into State Treasury			\$1,016 80

EXHIBIT No. 10.

Appropriations.

<i>FUND.</i>	<i>Act Approved.</i>	<i>Regular or Specific.</i>	<i>Amount Available for Current Year.</i>	<i>Expended During Year.</i>	<i>Balance Reverting to State Treasury.</i>
Maintenance	March 9, 1909	Regular	\$162,000 00
Maintenance	March 9, 1909	Excess patients	13,976 61	\$175,323 13	\$653 48
Clothing	March 9, 1909	Regular	6,500 00	6,499 69	31
Repairs	March 9, 1909	Regular	9,000 00	8,999 59	41
Cold storage	March 9, 1909	Specific	4,591 37	4,580 08	11 29
Closet annexes to buildings	March 9, 1909	Specific	2,222 97	1,206 17	1,016 80
Pathological building	March 9, 1909	Specific	6,646 66	6,644 20	2 46
Totals	\$204,937 61	\$203,252 86	\$1,684 75

EXHIBIT No. 11.

Summary of Expenditures from October 1, 1910, to September 30, 1911.

FUND.	October, 1910.	No- vember, 1910.	De- cember, 1910.	January, 1911.	February, 1911.	March, 1911.	April, 1911.	May, 1911.	June, 1911.	July, 1911.	August, 1911.	Sep- tember, 1911.	Total.
Maintenance	\$1,000 00	\$19,277 73	\$14,763 30	\$15,497 82	\$18,358 45	\$12,387 36	\$14,597 63	\$13,038 85	\$15,348 30	\$12,841 40	\$15,145 53	\$23,066 76	\$175,323 13
Clothing		1,303 03	736 17	517 21	843 49	1,579 62	682 63	349 14	248 14	203 70	31 31	5 25	6,499 69
Repairs		1,569 17	1,309 72	918 45	1,055 89	758 92	791 32	936 97	694 67	406 64	372 59	185 25	8,999 59
Cold storage		2,703 36	315 96	159 74	181 13	263 59	204 91	302 29	245 00		4 84	199 26	4,580 08
Closet annexes		258 51	68 00		138 50	242 53					135 83	362 80	1,206 17
Pathological building		1,662 18	1,058 35	3,178 27	594 20							151 20	6,044 20
Totals	\$1,000 00	\$26,773 98	\$18,251 50	\$20,271 49	\$21,171 66	\$15,232 02	\$16,276 49	\$14,627 25	\$16,536 11	\$13,451 74	\$15,690 10	\$23,970 52	\$203,252 86

EXHIBIT No. 12.

Officers and Employes, September 30, 1911.

POSITION.	Number Employed.	Salary per Month.	Additional Compensation. (Board, Laundry, etc.)
Trustee.....	4	\$25 00	Nonresident.
Medical superintendent.....	1	208 33	Resident.
Assistant physician.....	3	100 00	Resident.
Assistant physician.....	1	60 00	Resident.
Steward.....	1	110 00	Resident.
Assistant steward.....	1	95 00	One meal a day.
Bookkeeper.....	1	75 00	Resident.
Assistant clerk.....	1	35 00	Resident.
Matron.....	1	50 00	Resident.
Attendant.....	3	28 00	Resident.
Attendant.....	13	25 00	Resident.
Attendant.....	1	29 00	Resident.
Attendant.....	1	36 00	Resident.
Attendant.....	1	31 00	Resident.
Attendant.....	8	26 00	Resident.
Attendant.....	1	37 00	Resident.
Attendant.....	1	41 00	One meal a day.
Attendant.....	11	23 00	Resident.
Attendant.....	1	38 00	One meal a day.
Attendant.....	2	39 00	One meal a day.
Attendant.....	1	34 00	Resident.
Attendant.....	8	24 00	Resident.
Attendant.....	1	30 00	Resident.
Attendant.....	25	22 00	Resident.
Attendant.....	35	20 00	Resident.
Attendant.....	2	27 00	Resident.
Attendant.....	1	21 00	Resident.
Attendant.....	8	18 00	Resident.
Baker.....	1	80 00	One meal a day.
Baker's assistant.....	1	25 00	Resident.
Barber.....	1	31 00	Resident.
Clothing clerk.....	1	26 00	Resident.
Clothing clerk.....	1	29 00	Resident.
Cook, officers' kitchen.....	1	40 00	Resident.
Cook, general kitchen.....	1	50 00	Resident.
Cook, assistant.....	1	30 00	Resident.
Cook, assistant.....	1	27 00	Resident.
Cook, assistant.....	7	20 00	Resident.
Cook, assistant.....	1	28 00	Resident.
Cook, assistant.....	1	25 00	Resident.
Carriage driver.....	1	35 00	Resident.
Coal man.....	2	27 50	Resident.
Carpenter, head.....	1	70 00	Resident.
Carpenter, assistant.....	1	66 00	One meal a day.
Carpenter, assistant.....	1	61 00	One meal a day.
Dairymaid.....	1	21 00	Resident.
Dairyman, head.....	1	50 00	One meal a day
Dairyman, assistant.....	1	27 00	Resident.
Dairyman, assistant.....	1	40 00	Nonresident.
Dairyman, assistant.....	1	25 00	Resident.
Engineer, chief.....	1	100 00	House, light and water.
Engineer, night.....	1	50 00	Resident.
Engineer, assistant.....	2	49 00	Resident.
Fireman.....	3	31 00	Resident.
Florist, head.....	1	65 00	Resident.
Florist, assistant.....	1	45 00	House, light, water, one meal a day.
Florist, assistant.....	1	25 00	Resident.
Florist, assistant.....	1	23 00	Resident.
Gardener.....	1	40 00	Nonresident.
Gardener.....	1	23 00	Resident.
Housekeeper.....	1	30 00	Resident.
Housemaid.....	1	18 00	Resident.
Housemaid.....	1	15 00	Resident.
Housemaid.....	1	15 00	Resident.
Housemaid.....	1	12 00	Resident.
Hostler.....	1	26 00	Resident.
Industrial teacher.....	1	30 00	Resident.
Ironer.....	1	27 00	Resident.
Ironer.....	3	12 00	Resident.
Ironer.....	3	15 00	Resident.

EXHIBIT No. 12—Continued.

Officers and Employes, September 30, 1911.

POSITION.	Number Employed.	Salary per Month.	Additional Compensation. (Board, Laundry, etc.)
Ironer.....	2	\$16 00	Resident.
Ironer.....	1	30 00	Nonresident.
Ironer.....	1	17 00	Resident.
Laundry foreman.....	1	65 00	One meal a day.
Laundryman.....	1	30 00	Resident.
Laundry porter.....	1	27 00	Resident.
Laundry assorter.....	1	20 00	Resident.
Laundry assorter.....	1	12 00	Resident.
Laundress.....	1	17 00	Resident.
Laundress.....	1	34 00	Nonresident.
Laundry attendant.....	1	35 00	Nonresident.
Meat cutter.....	1	55 00	One meal a day.
Porter, day.....	1	25 00	Resident.
Porter, night.....	1	46 00	One meal a day.
Porter, store.....	1	30 00	Resident.
Painter, head.....	1	75 00	One meal a day.
Painter, assistant.....	1	55 00	One meal a day.
Patrolman, night.....	1	70 00	One meal a day.
Poultryman, assistant.....	1	21 00	Resident.
Supervisor.....	1	64 00	One meal a day.
Supervisor, outside.....	1	50 00	One meal a day.
Supervisoreess.....	1	50 00	Resident.
Surgical nurse.....	1	50 00	Resident.
Seamstress, head.....	1	40 00	Nonresident.
Seamstress.....	1	18 00	Resident.
Seamstress.....	1	23 00	Resident.
Seamstress.....	1	31 00	Nonresident.
Seamstress.....	1	16 00	Resident.
Seamstress.....	1	17 00	Resident.
Teamster.....	1	43 00	One meal a day.
Teamster.....	1	41 00	Nonresident.
Teamster.....	1	40 00	Nonresident.
Usher.....	1	35 00	Resident.
Upholsterer.....	1	58 00	Nonresident.
Waitress.....	3	13 00	Resident.
Waitress.....	5	12 00	Resident.

EXHIBIT No. 13.

Farm and Garden Products, October 1, 1910, to September 30, 1911.

PRODUCT.	Quantity Raised, Pounds.	Estimated Value.	ESTIMATED VALUE OF PRODUCTS USED DURING YEAR.		
			In Kitchens.	In Outdoor Depart- ments.	Total
Asparagus.....	611	\$74 42	\$74 42		\$74 42
Apples.....	51,695	723 18	723 18		723 18
Blackberries.....	62	7 44	7 44		7 44
Beans (green).....	12,802	638 60	638 60		638 60
Beans (lima).....	2,255	127 12	127 12		127 12
Beets.....	5,113	66 63	66 63		66 63
Beef (dressed).....	2,705	171 53	171 53		171 53
Cabbage.....	89,888	938 81	938 81		938 81
Carrots.....	1,613	17 04	17 04		17 04
Cauliflower.....	94	4 46	4 46		4 46
Crab apples.....	795	9 94	9 94		9 94
Celery.....	2,889	86 67	86 67		86 67
Cherries.....	3,268	81 70	81 70		81 70
Chickens (live).....	3,051	390 72	390 72		390 72
Corn (sweet).....	23,713	241 28	241 28		241 28
Corn (field).....	11,900	59 50		\$59 50	59 50
Currants.....	75	7 50	7 50		7 50
Cucumbers.....	3,714	304 48	304 48		304 48
Dill.....	1	25	25		25
Eggs (dozen).....	8,417	1,657 12	1,657 12		1,657 12
Egg plant.....	56	4 36	4 36		4 36
Endive.....	52	8 30	8 30		8 30
Ensilage.....	373,105	466 38		466 38	466 38
Fodder (shocks).....	345	35 42		35 42	35 42
Grapes.....	2,940	58 80	58 80		58 80
Gooseberries.....	471	37 68	37 68		37 68
Hogs.....	29,480	2,016 19	2,016 19		2,016 19
Horseradish.....	35	1 75	1 75		1 75
Kohlrabi.....	165	3 30	3 30		3 30
Lettuce.....	2,747	183 43	183 43		183 43
Luffas.....	50	1 50	1 50		1 50
Mangel-wurzel.....	27,880	69 70		69 70	69 70
Milk.....	348,115	6,692 30	6,692 30		6,692 30
Onions (green).....	5,884	90 45	90 45		90 45
Onions (dry).....	11,868	231 05	231 05		231 05
Onions (pickled, quarts).....	64	16 00	16 00		16 00
Parsnips.....	14,064	118 91	118 91		118 91
Parsley.....	28	3 53	3 53		3 53
Peas.....	2,459	115 91	115 91		115 91
Peppers.....	27	1 94	1 94		1 94
Peaches.....	314	6 28	6 28		6 28
Pears.....	2,843	42 65	42 65		42 65
Pickles.....	756	239 25	239 25		239 25
Potatoes.....	91,166	1,231 55	1,231 55		1,231 55
Pumpkins.....	4,546	20 77	20 77		20 77
Peppermint.....	2	24	24		24
Radishes.....	1,303	48 16	48 16		48 16
Raspberries (red).....	95	10 45	10 45		10 45
Raspberries (black).....	699	69 90	69 90		69 90
Rhubarb.....	7,400	154 92	154 92		154 92
Sauerkraut (gallons).....	1,040	240 00	240 00		240 00
Sweet potatoes.....	1,352	59 67	59 67		59 67
Squashes.....	1,810	24 15	24 15		24 15
Sage.....	10	2 50	2 50		2 50
Strawberries.....	5,114	460 26	460 26		460 26
Spinach.....	4,480	134 40	134 40		134 40
Swiss chard.....	550	13 75	13 75		13 75
Sugar cane.....	95,515	119 40		119 40	119 40
Tomatoes.....	27,194	494 32	494 32		494 32
Tomatoes (gallons).....	614	153 50	153 50		153 50
Turnips.....	27,681	175 78	175 78		175 78
Turkeys (live).....	1,485	237 60	237 60		237 60
Water cress.....	5	50	50		50
Total.....		\$19,705 29	\$18,954 89	\$750 40	\$19,705 29

Estimated cost of production..... \$12,257 50

EXHIBIT No. 14.

Statement of Earnings.

MONTHS.	SOURCE OF RECEIPT.												
	Rags, Old Iron, Bones, Rubber.	Returned Freight.	Hides.	Calves.	Teaming.	Board for Employee.	Timber.	Empty Barrels.	Old Elevator.	Damage to Fence, Trees and Crockery.	Raffia Baskets and Rugs.	Old Horse.	Totals.
October.....	\$5 78	\$24 00	\$29 78
November.....	\$22 00	\$1 20	23 20
December.....	14 32	27 00	\$9 50	\$500 00	\$1 30	552 12
January.....	5 46	30 01	\$6 72	20 00	827 00	9 80	898 99
February.....	3 60	9 20	5 00	17 80
March.....	13 38	5 68	5 00	24 06
April.....	8 97	5 00	\$13 00	\$35 00	61 97
May.....	4 53	3 00	1 30	8 83
June.....	35 48	5 00	\$52 68	93 16
July.....	6 90	19 00	3 25	15 25	44 40
August.....	6 32	6 00	7 75	\$25 00	45 07
September.....	4 05	5 00	50	18 20	27 75
Totals.....	\$108 79	\$54 01	\$21 60	\$122 00	\$1 20	\$9 50	\$1,327 00	\$20 65	\$25 00	\$16 25	\$86 13	\$35 00	\$1,827 13

EXHIBIT No. 15.

Earnings Deposited with State Treasurer.

DATE.	Amount.	Number of Quietus.
November 4, 1910.....	\$29 78	2779
December 5, 1910.....	23 20	2990
January 7, 1911.....	252 12	3176
February 6, 1911.....	898 99	3293
March 3, 1911.....	17 80	2433
April 4, 1911.....	24 06	3682
May 2, 1911.....	61 97	3867
June 6, 1911.....	8 83	4024
July 3, 1911.....	93 16	4188
August 4, 1911.....	44 40	4246
September 5, 1911.....	45 07	4282
September 29, 1911.....	27 75	4447

SUMMARY OF STATISTICS FOR THE YEAR ENDING SEPTEMBER 30, 1911.

(Prepared in conformity to resolution adopted by the National Conference of Charities and Correction, Philadelphia, May, 1906.)

MOVEMENT OF POPULATION.

	Men.	Women.	Total.
Number of inmates enrolled Oct. 1, 1910.....	536	539	1,105
Temporarily absent	41	63	104
Number of inmates received during year....	127	87	214
Number of inmates enrolled Sept. 30, 1911..	549	511	1,060
Temporarily absent	56	68	124
Daily average attendance of inmates for year ending Sept. 30, 1911	510.227	467.427	977.654
Average number of officers and employees....	105.495	94.646	200.141

EXPENDITURES.

Ordinary Expenses—	Per Capita.	Total.
Salaries and wages	\$80.0358	\$78,251 95
Subsistence	51.0511	49,913 66
Clothing	4.8176	4,710 29
Office, domestic and outdoor expenses	52.1488	50,986 95
Ordinary repairs	7.1181	6,959 56
 Total	 \$195.1714	 \$190,822 41
 Extraordinary Expenses—		
New buildings and furnishings for same....	11.4801	11,224 28
Permanent improvements	1.2336	1,206 17
 Grand total expenses	 \$207.8851	 \$203,252 86
Receipts from sales of waste material.....	1.8687	1,827 13
 Net total expenses	 \$206.0164	 \$201,425 73

REPORT OF THE SEWING ROOM, FISCAL YEAR ENDING SEPTEMBER 30, 1911.

	Made.
Aprons, surgery	4
Aprons	669
Bibs	73
Broom covers	20
Chemises	333
Coffee urn sacks	18
Curtains, muslin	251
Curtain loops	220
Curtains, scrim	48
Combination suits	111
Camisoles	119
Combination restraints	8
Dresser scarfs	72
Diapers	261
Drawers	306
Dresses, percale	690
Dresses, woolen	11
Dresses, restraint	24
Gowns	790
Laundry pillow covers	183
Laundry bags	155
Mattress ticks	77
Mittens, restraint	10
Mattress protectors	65
Mangle pads	2
Muffs, restraint	31
Napkins	215
Pillow ticks	41
Pillow cases	1,643
Restraint straps	16
Shirtwaists	12
Sheets, single	1,658
Sheets, double	45
Shrouds	20
Shroud gowns	30
Suspenders, ticking	28
Shirts, sick	235
Tablecloths, white	65
Toilet paper bags	42
Towels, roller	372
Towels, bath	994
Towels, dish	774
Towels, glass	439
Underskirts	460
Underwaists	21
Wagon cover	1

DENTAL REPORT.

Fiscal Year October 1, 1910, to September 30, 1911.

Extractions	294
Artificial dentures	4
Cement fillings	2
Amalgam fillings	7
Treatments	3
Temporary fillings	3
Artificial crown	1
Post for amalgam filling	1
Partial lower plates	1
Upper plates	1
Repairing upper plates	1
Repairing lower plates	2
Bridge repair	1
Abscess lanced	1
Teeth cleaned	1

POULTRYMAN'S REPORT FOR YEAR ENDING SEPTEMBER 30, 1911.

	Quantity Raised, Pounds.	Esti- mated Value.
Chickens	3,051	\$390 72
Turkeys	1,485	237 60
Eggs (dozen)	8,417	1,657 12
		<hr/>
		\$2,285 44
Estimated cost of production.....		1,236 70
		<hr/>
Estimated profit		\$1,048 74

I certify that the foregoing fiscal tables are correct transcripts.

E. E. WORSTELL,

Bookkeeper.

ANNUAL REPORT

OF THE

Indiana State Prison

MICHIGAN CITY, INDIANA

From September 30, 1910
to October 1, 1911

To the Governor

INDIANAPOLIS :

WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING

1912

THE STATE OF INDIANA,

EXECUTIVE DEPARTMENT,

JANUARY 3, 1912.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,

INDIANAPOLIS, January 26, 1912.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,

Auditor of State.

JANUARY 26, 1912.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,

Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, January 26, 1912.

L. G. ELLINGHAM,

Secretary of State.

Received the within report and delivered to the printer, January 26, 1912.

ED. D. DONNELL,

Clerk Printing Board.

INDIANA STATE PRISON.

OFFICERS, 1911.

Board of Trustees.

JOHN B. STOLL.....	South Bend
MICHAEL E. FOLEY.....	Indianapolis
HERBERT R. KOFFEL.....	Knox
FRANK C. BAIRD.....	Attica

EDWARD J. FOGARTY.....	Warden
JAMES W. MILLIGAN.....	Deputy Warden
WALTER H. DALY.....	Clerk
ORVILLE L. KIPLINGER.....	Chaplain
A. M. ELLERING.....	Catholic Chaplain
PAUL E. BOWERS.....	Physician
JOSEPH M. STIPP.....	State Agent

REPORT OF THE BOARD OF TRUSTEES.

INDIANA STATE PRISON,
MICHIGAN CITY, INDIANA.

To the Honorable Thomas R. Marshall, Governor:

Sir—The Board of Trustees of the Indiana State Prison submit their annual report for the year ending September 30, 1911. The report of the Warden to us, and of his subordinate officers to him, are made a part of this general report.

Physical and Sanitary Conditions.

We are pleased to report the physical and sanitary conditions of the institution as very excellent. The streets and sidewalks are models of neatness in construction, and the buildings are in a good state of repair.

Each of the cell-houses is warmed by a ventilating system in which warm air is forced over steam-heated coils of pipe. The temperature, as shown by the record cards kept by the officers on duty, is quite uniform. All cells are lighted by electricity.

That no typhoid or malarial fevers, no infectious or contagious diseases have menaced the welfare of the institution is proof of the sanitary precautions that are in continuous evidence.

Discipline.

We give hearty approval to the character of the discipline enforced. Brutality, or harsh, or cruel treatment is not simply forbidden, it is not tolerated. Plain and emphatic, though reasonable rules for the government of the inmates hang in every cell. These rules are firmly adhered to, and a wholesome regard for them seems to prevail.

We are in accord with the Warden's plan to prepare a drill-ground and to give the inmates a certain amount of military drill. We shall expect to see the beneficial effects of this innovation at an early date. We believe he has the correct idea of discipline, to wit: that things forbidden shall be strictly prohibited, and that things required shall not only be done, but well done.

Improvements.

It is a pleasure to note that no signs of retrogression are visible. The new Indiana Hospital for Insane Criminals is nearing completion; the new cell-house is almost ready for use; additional ovens have been added to the bakery; much paint has been spread on both exterior and interior surfaces; the houses of the deputy warden and the clerk have been repapered and painted on the outside; the Warden's residence has been painted on the inside and repapered; and all property seems to be in an excellent state of preservation.

Binder Twine.

The plan of selling twine direct to the farmers, as mentioned in the Warden's report, meets our approval. The wide scope of advertising planned, together with the zealous efforts to induce the farmers of this and other states to give Indiana twine a trial will certainly result in greatly increased sales.

Criminal Insane.

The physician's report shows a gradual increase in the insane population. A number of insanity inquests have been held, and it will be necessary to hold many more preparatory to moving this class of prisoners to the new hospital.

Under the law all insane prisoners who have not been sentenced to the Indiana Hospital for Insane Criminals must be declared insane by a properly constituted commission before they can be transferred to the new hospital. This necessitates quite an additional amount of work by the physician in charge.

Paroles.

The board of parole has varied little in its policy in granting paroles. The question as to the applicant's intent and fitness to live a useful and worthy life is the one receiving first and greatest consideration. The agent's report, showing that 75 per cent. of the men paroled make good, is gratifying to us. We desire to record the fact that more than 90 per cent. of the parole violations are directly due to the excessive use of intoxicating liquors. We are very certain that great precaution should be exercised in placing paroled men.

Change in Officers.

Our last report mentioned the death of Warden James D. Reid, who departed this life September 2, 1910. Deputy Warden Garner was appointed acting warden, and performed the duties of that office till January 1, 1911, when he severed his connection with this institution. F. J. Harvey, the state agent, also tendered his resignation to take effect January 1, 1911.

Dr. James W. Milligan, having been appointed deputy warden in December, 1910, the institution, at the close of the calendar year, 1910, was without a warden, a physician, or a state agent.

State Agent.

Joseph M. Stipp, ex-recorder of Pulaski County and Grand Master of the I. O. O. F. of Indiana, was appointed state agent. He is a man of much experience in business, and with men, and his work in our parole department has been meritorious.

Physician.

As the law provides that the Indiana State prison physician shall be the physician in charge of the Indiana Hospital for Insane Criminals, it follows, therefore, that a man of peculiar fitness should have charge of these departments.

Dr. Paul E. Bowers, a graduate from the Indiana Medical College and a man of considerable experience with the insane, was appointed. Aside from his ordinary medical practice he has been connected with our insane hospital at Logansport, Indiana, with various marine hospitals of this country, and has had two years' experience in the Government insane hospital at Washington, D. C., during which time he took special training in the military schools, giving particular attention to psychiatry, the treatment of mind diseases. His work is daily proving his fitness for the position to which he has been called.

Warden.

The wardenship of this institution is not a sinecure; the man who performs the multitudinous and multifarious duties of the office, and does it well, does a very strong man's work.

After much deliberation the board of trustees called the Hon. Edward J. Fogarty, ex-mayor of South Bend, Indiana, to the office. He assumed his duties on the first day of January, this year.

It is our pleasure to record our unanimous approval of his administration to date. We fully appreciate the peculiar situation which confronted him when he accepted the wardenship. That he has adjusted himself to the situation, readily recognizing and respecting the nonpartisan character of the institution, and has carried on the work without the slightest change in the official force, winning in a marked degree the respect and esteem of both officers and inmates, and at the same time bringing the force and influence of his personality to all the departments, is a fact beyond question.

He has been faithful to the board and to the State in the discharge of his duties, and we bespeak for him the confidence of the people of the State and commend him for the zeal which he has manifested toward the advancement of the welfare of the institution.

Conclusion.

We have recognized the potency of your interest in the institution, manifested on various occasions and in various ways. We desire to make this official acknowledgment of the worth of your personal, friendly attention to, and your wise counsel in the affairs of the Indiana State Prison.

Respectfully submitted,

J. B. STOLL.
F. C. BAIRD.
M. E. FOLEY.
H. R. KOFFEL.
Board of Trustees.

WARDEN'S REPORT.

WARDEN'S OFFICE, INDIANA STATE PRISON.

Michigan City, Indiana.

To the Honorable Members of the Board of Trustees:

Gentlemen—Complying with legislative requirement, I submit to you the annual report of the Indiana State Prison for the year ending September 30, 1911.

Attached hereto are the reports of the deputy warden, clerk, physician, chaplain, and state agent. I believe these reports to be correct in every particular.

We have, at the close of this year, an institutional population of 1,071. The population on September 30, 1910, was 1,096; this shows a decrease of 25 from last year.

I assumed the duties of this office on the first day of January, 1911, and have, therefore, served in this capacity for a period of nine months. To the credit of my predecessors and their assistants I wish to say that I found the physical condition of the institution to be most excellent, and the wide reputation for its superior discipline to be sustained in fact.

We have diligently carried on the work yet to be done on the new buildings at the close of last year. I am glad to report that both the cell-house and the hospital for the insane are almost completed. They are splendid buildings, and in some particulars they display marvelous ingenuity.

A thing that has particularly attracted my attention as I walked about the yard in the walled enclosure was the almost constant digging here and there by some of the inmates to find some defect that existed in steam or water pipes. This produced an unsightly condition in the grass plots and in the streets and sidewalks.

We have constructed a tunnel from the power-house to the south wall along the center of the main street. This tunnel will contain all the pipes and wires leading to the buildings on either side of the street. It is sufficiently wide and high to enable the workmen to stand erect at their work and to have plenty of elbow room. This street, the center one of the institution, is now a beautiful boulevard; its sides are paved with concrete, and grass plots and flower-beds will occupy the center.

It is my earnest desire to fill and level the vacant space in the north west corner of the yard and use it for a drill ground for the inmates. There is no question as to the necessity of a time and place for recreation for those who are compelled to live in idleness, or whose work may be such as to make their habits sedentary. I believe that both the mental and physical condition of all the inmates would be improved if a certain part of each day, or, at least, a part of one day of each week could be devoted to drill work of some sort.

I note in looking over the labor contracts entered into by your honorable body that sufficient labor has been let to make the institution self-supporting, provided all the contracts are kept full. I can see no reason why this institution may not be self-sustaining, and it is my purpose to make and keep it so.

I have given some special attention to the general dining-room, the results of which have proved gratifying. In looking over the bills of fare I was struck with the sameness which seemed to characterize the meals, particularly the dinners. Boiled beef, steamed potatoes, gravy; this diet appeared so often that I felt certain the inmates must tire of the ration served. I believe in serving plain, substantial food to the inmates; and I believe further that plain, substantial food can be so varied and so prepared as to be inviting rather than repelling. To the end that this might be so I have personally supervised the choice of food and the arrangement of the bill of fare from the first of July to the present time. I seldom hear of any one complaining of the food now served; in fact the officers report that there is general satisfaction at the change in the dietary, and especially that no two meals are alike during any single week. They are glad that they can enter the dining-room not knowing just what awaits them.

For the three months just passed the average daily cost per man has been 9.85 cents; for the three preceding months this cost was 11.03 cents per man, showing a difference of 1.18 cents. On a basis of 1,000 inmates this means a saving of \$11.80 per day, or \$1,085.00 for the period mentioned.

The cost per man per day for the corresponding three months (July, August and September) of last year was 10.59 cents. We have, therefore, lowered the cost of last year .74 cents. On a basis of 1,000 inmates this amounts to \$7.40 per day, or \$680.80 for the three months mentioned.

I am convinced by this showing that this department of the institution should have constant and careful attention. It may be of interest to note in this connection that the waste from the table fell from 9,482 pounds reported in June to 7,713 pounds reported in September.

That we have been able to feed the inmates well with the showing made, as above stated, emphasizes the importance of close attention to details in matters of this kind.

It has been the custom in past years to clothe the men here in the same apparel winter and summer. I have seen men digging deep trenches, handling mortar, laying brick, and carrying hods dressed in heavy winter cloth, though the day was oppressively hot. Some of them were wearing brand new suits. They have complained to me of the discomfort of such heavy clothes, and I consider the complaint well founded.

It is my purpose, therefore, to provide overalls for men who work hard in the shops or in the yard during hot weather, and for all men who do work which unavoidably soils the clothes; such as plumbers, masons, hod-carriers, engineers and coal shovelers. Overalls will, of course, be removed when working hours are over, and the regulation pants substituted.

Cost of clothing for the inmates is not a small item, and by furnishing apparel to be worn for rough and dirty work that costs $12\frac{1}{2}$ cents per yard instead of the regulation cloth which costs $97\frac{1}{2}$ cents per yard we hope to

dress the men more comfortably during the warm season and to materially lower the clothing expense account.

The yard of this institution is lighted during the night time by 54 5-ampere, 110-volt lamps. To keep these lights going requires a constant energy of 40 horsepower. Only five inmates are out of their cells at night; three firemen and two electricians.

It has been customary to keep the chapel, twine plant, and many of the buildings warm during the night—in other words not to shut off the steam at night. I am very certain that by a rearrangement of the yard lights, by practicing ordinary economy in steam heating, and by the substitution of tungsten lamps for those now in use we can very materially lower the cost of coal used for these purposes.

Our binder twine sales for the season just closed did not fully meet our expectations. The fierce competition of trust-made twine, with the prejudice that exists against prison-made goods, lost us much patronage among the twine merchants of the state. We have begun a campaign of education among the farmers of this State by exhibiting samples of our twine, with the process of making it, at the State Fair, the Allen County Fair, and the Noble County Fair. We are handing out and sending out literature to every farmer of the State. The twine made here is excellent in quality and of standard length. No complaints have come to us from any source. We are pressing these facts home to the farmers, together with the reasons why it is to their interests to patronize the industry which they are supporting by taxation.

During the next season we expect to increase our sales very much, and will sell direct to the farmers. With an annual consumption of over 9,000,000 pounds of binder twine yearly in this state we should be able to dispose of every pound that it is possible for us to manufacture here.

In concluding this report I desire to say something of the inmates of this institution, and to record some of the impressions that have been thoroughly established in my mind by careful observation, and by constant communication with them.

They may be divided into two general classes: first, those who have sought opportunity for criminal actions, and have been actuated by a studied purpose; and second, those who have committed crime when the opportunity came unsought, and the incentive, though momentary, was, by the force of circumstances, too strong to be resisted.

It seems to me that the first class can not be held too long, unless they give positive and convincing proof of a changed purpose in life, and that the second class can not be paroled too soon.

I am impressed with the fact that errors in granting paroles are invariably revealed; but that those which may be made in denying paroles never come to light. I am thoroughly of the opinion that there is more danger in denying a parole to a worthy case than in granting one to an unworthy case.

I am fully convinced that no man ever has been or ever will be reformed or made better by punishment. He may be subdued and the beast in him may be conquered for the time; but a clean heart and a right spirit can never be punished into him.

It is my purpose to deal with the inmates of this institution as men; to find and touch, if possible, the responsive chord in their better natures that answers always, if it can be found.

If I may be able to cause every man here to feel that we are friends and not enemies, that it is our purpose to make his stay here just as free from things galling as the circumstances will allow, if he will let us, and that we can not possibly have any reason or desire to humiliate him in any manner—if I may be able to do these things without in any way lowering the respect that must exist for rules and regulations, or in any manner impairing the very excellent discipline that characterizes this institution, I shall feel that in this particular I have accomplished much; for I shall have caused many of the men to take a different view of their surroundings and a new outlook upon life.

With full acknowledgments of my many obligations to your honorable board and to my subordinate officers, I am,

Very respectfully,

E. J. FOGARTY,
Warden.

DEPUTY WARDEN'S REPORT.

To the Hon. Edward J. Fogarty, Warden:

Sir—I have the honor to submit herewith the deputy warden's report for the fiscal year ending September 30, 1911.

The duties of the office were assumed December 15, 1910. My predecessor, Mr. W. A. Garner, having severed his connection with the institution to enter upon an inviting field of work at the head of an eastern prison.

His force and ability as an executive officer, the excellence of the organization he was so largely instrumental in developing here, the high character of his work in general, it is a pleasure to commend in emphatic terms.

The richest endowment of any institution is its men; not even the wealth of a State treasury may be a substitute; and Indiana is always left the poorer when from her institutions go those who have done important work in their development.

At the beginning of the fiscal year the population was 1,096; at its close, September 30, 1,071, with an average of 1,077.

There were admitted 248 new men.

Two suicides occurred; one by strangulation, and one from jumping from one of the ranges; in each case the coroner was called.

With the exception of certain antiquated portions of the institution, the physical equipment continues good, and some substantial improvements have been made within the year.

There has been abundant employment for all who could work; a group of the mentally defective has, since the early spring, rendered excellent service with shovel and wheelbarrow, resulting in the improved appearance of the men as well as the grounds.

Discipline has continued good; serious violations of regulations have fortunately been rare.

The best work of an institution is too intangible to be tabulated; besides statistics are dry and frequently misleading; the following may, however, serve a purpose:

Table Showing Grades, Punishments and Merits.

MONTHLY AVERAGE FOR FISCAL YEAR, OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.			Average Population.	Average in First Grade.	Average in Second Grade.	Average in Third Grade.	Total Number of Reports.	Number of Punishments.	Number of Reprimands.	Average Duration of Punishment.	Number Wearing Merits.	Not Eligible.
October.....	1910	1,100	1,065	32	3	53	16	37	D. H. M.	3- 9- 3	706	394
November.....	1910	1,104	1,066	33	3	41	9	32		3- - 6	714	340
December.....	1910	1,094	1,058	34	2	34	4	30		3-22-15	718	376
January.....	1911	1,085	1,056	28	1	56	6	50		3-12-50	708	377
February.....	1911	1,086	1,057	28	1	47	7	40		2- 4-43	699	387
March.....	1911	1,076	1,042	34	0	56	8	48		2- 5-40	685	391
April.....	1911	1,066	1,025	41	0	35	3	32		4-11-10	671	395
May.....	1911	1,048	1,013	33	2	32	8	24		3-15-11	653	395
June.....	1911	1,061	1,025	35	1	32	5	27		3- 6-36	666	395
July.....	1911	1,073	1,036	36	1	30	5	25		3-21-	676	397
August.....	1911	1,071	1,025	45	1	55	15	40		2- 4-14	673	398
September.....	1911	1,068	1,036	41	1	38	5	33		2-10-42	664	404

It has been our good fortune to be spared the curse of idleness; as stated there has been work for all.

This, in connection with a fairly liberal "overtime" allowance in the shops, has been of invaluable assistance in maintaining discipline; add to this the system of "merit braids," long in vogue, with its important bearing upon the applicant's eligibility for parole, and you have presented the most powerful incentives for good conduct.

To inculcate a wholesome respect for the laws of the State and the regulations of the institution; to so administer these regulations with firmness and kindness, as to inspire hope and a determination to win in the battle of life, has been the aim, though not the universal result.

An appreciation upon the part of the prisoner of the fact that a man is committed to a penal institution—

First, to pay the penalty for the violation of the law;

Second, for the protection of society;

Third, for the reformation of the individual;

and the further great fact that (if an indeterminate sentence man) he is in a position to *earn* his parole and restoration to society by good conduct, instead of asking that it be bestowed as an act of clemency—a just appreciation of all this is as essential for right living within the walls, as it is for good citizenship outside.

Within the year there have been very few changes among the officers, who at this time number sixty.

This is indeed most fortunate; for upon the stability of the official force, as upon the experience, tact, firmness, kindness and faithfulness of the individual, does the reputation of an institution rest.

Success depends not upon any one person, but upon the earnest, united efforts of all.

To the loyal co-operation of the officers and the heads of departments of this institution; to your counsel, encouragement and unfailing cheerfulness, I wish to ascribe any measure of success that may have attended the work of the year; and for this I desire to express my sincere appreciation and thanks.

Respectfully submitted,

JAMES W. MILLIGAN.

Deputy Warden Indiana State Prison.

FINANCE AND STATISTICAL DEPARTMENT.

CLERK'S REPORT.

CLERK'S OFFICE, INDIANA STATE PRISON,
Michigan City, Indiana.

To Hon. Edward J. Fogarty, Warden:

Sir—I herewith submit my report of the financial operations and statistics of this institution for the year ending September 30, 1911.

Statement Showing Cost of Maintenance from October 1, 1910, to September 30, 1911.

Average cost of food each man per day.....	\$0.1012
Average gross cost each man per day.....	.3935
Average gross cost per man per year.....	143.6348
Average daily population	1,077.499

SUMMARY.

Maintenance Appropriation \$120 per capita per annum for each prisoner actually present over a daily average population of 900 per month, from October 1, 1910, to September 30, 1911.

MONTH.	Average Daily Population.	Excess.	Capita Per Month.	Amount.
October.....	1,099.612	199.612	\$10 00	\$1,996 12
November.....	1,101.733	201.733	10 00	2,017 33
December.....	1,094.354	194.354	10 00	1,943 54
January.....	1,085.290	185.290	10 00	1,852 90
February.....	1,085.857	185.857	10 00	1,858 57
March.....	1,073.870	173.870	10 00	1,738 70
April.....	1,065.633	165.633	10 00	1,656 33
May.....	1,048.419	148.419	10 00	1,484 19
June.....	1,064.266	164.266	10 00	1,642 66
July.....	1,072.096	172.096	10 00	1,720 96
August.....	1,071.000	171.000	10 00	1,710 00
September.....	1,067.000	167.000	10 00	1,670 00
Total.....	12,929.130	2,129.130		\$21,291 30

Statement of Appropriations and Expenditures for year from October 1, 1910, to September 30, 1911.
Regular and Specific.

FUND.	Act Approved.	Regular or Specific.	Amount Available for Current Year.	Expended During Year.	Reverting to State Treasury.	Available for Further Use.
Maintenance.....	Mar. 9, 09	Regular.	\$108,000 00	\$108,000 00		
Maintenance per capita	Mar. 9, 09	Regular.	21,291 30	21,289 18	\$2 12	
Ordinary repairs and im-						
provements.....	Mar. 9, 09	Regular.	5,000 00	4,990 71	9 29	
Discharged prisoners.....	Mar. 9, 09	Regular.	4,000 00	2,567 73	1,432 27	
Paroled prisoners and super-						
vision.....	Mar. 9, 09	Regular.	8,000 00	7,889 11	110 89	
Criminal insane.....	Mar. 9, 09	Regular.	6,000 00	5,878 79	121 21	
Library.....	Mar. 9, 09	Regular.	750 00	631 27	118 73	
Suspended sentence cases.	Mar. 9, 09	Regular.	1,800 00	1,560 36	239 64	
New cell house.....	Mar. 9, 09	Specific.	26,857 15	26,854 67	2 48	
Binder twine.....	Feb. 28, 07	Specific.	177,264 74	124,360 82		\$55,293 20
*Governor emergency con-						
tingent fund.....	Mar. 9, 09	Specific.	3,294 26	3,294 26		
New factory building	Mar. 9, 09	Specific.	40 18		40 18	
Total.....			\$362,237 03	\$307,316 90	\$2,076 81	\$55,293 20

*NOTE: Fire loss, factory building, January 13, 1911, \$1,334.99; maintenance, \$1,959.27.

Statement of Earnings from October 1, 1910, to September 30, 1911.

SOURCE OF RECEIPT.

MONTH.	J. G. Mott.		Sterling Mfg. Co.	Reliance Mfg. Co.	Mt Airy Stone Co.	Marion Leather Goods Co.	The Ford & Johnson Co., Chairs.		United States Rattan Co.	Amount.
	Cooperage.	Overalls.	Shirts.	Monuments.	Leather Goods.	Reed and Fibre.	Bent Wood.	Rattan.		
October	\$395 85	\$680 25	\$1,722 65	\$2,246 40	\$242 45	\$1,521 00				\$6,808 60
November		298 76	1,660 00	2,763 70	973 05	1,688 05				7,413 56
December	20 15	140 19	1,790 00	3,112 20	1,531 40	2,226 90			\$29 25	8,850 09
January			474 33	3,183 70	800 80	2,523 30			123 75	7,105 88
February				3,023 15	630 15	2,523 95			1,093 50	7,570 75
March				3,291 60	1,604 20	1,508 65	\$1,032 85		1,388 50	9,025 80
April				3,197 35	1,529 45	1,412 45	997 75		1,482 00	8,619 00
May				3,113 50	1,510 60	1,520 35	989 95		1,427 25	8,561 65
June				3,087 50	1,476 15	1,573 65	1,001 65		1,422 75	8,561 70
July				2,956 85	1,446 25	1,521 00	1,960 05		1,371 75	8,255 90
August				3,139 50	1,567 48	1,649 05	1,066 65		1,494 00	8,916 68
September				2,969 20	1,502 88	1,516 45	1,015 30		1,437 00	8,440 83
Total	\$426 00	\$1,119 20	\$5,646 98	\$36,114 65	\$15,114 86	\$21,184 80	\$7,064 20	\$11,469 75		\$98,130 44

Statement of Receipts and Earnings October 1, 1910, to September 30, 1911. Showing payment to Auditor of State

PAYMENT.	Quietus.	RECEIPTS AND EARNINGS.		Total.
		Labor.	Miscellaneous.	
November 23, 1910.....	2876	\$6,808 60		\$6,808 60
December 1, 1910.....	2965		\$118 12	118 12
December 13, 1910.....	3009	7,433 71	24 85	7,458 56
January 7, 1911.....	3169		26 90	26 90
January 10, 1911.....	3185		33 00	33 00
January 25, 1911.....	3250	474 33		474 33
January 30, 1911.....	3274	8,800 69	145 00	8,945 69
February 2, 1911.....	3290		173 45	173 45
February 27, 1911.....	3399	6,660 80	17 30	6,678 10
April 1, 1911.....	3634	6,477 25	75 45	6,552 70
April 29, 1911.....	3849	1,093 50	128 20	1,221 70
May 4, 1911.....	3875	1,604 20		1,604 20
June 3, 1911.....	4006	8,951 05	201 71	9,152 76
July 3, 1911.....	4185	8,600 15	93 32	8,693 47
July 31, 1911.....	4234	11,614 70	245 32	11,860 02
August 31, 1911.....	4266	4,403 10	25 00	4,428 10
September 26, 1911.....	4388	17,029 91	279 86	17,309 77
Total.....		\$89,951 99	\$1,587 48	\$91,539 47

NOTE: Labor earnings due from contractors, not paid, as follows; \$8,178.45. August, Ford & Johnson Co., \$1,649.05, \$1,066.65, total, \$2,715.70; and United States Rattan Co., \$1,494.00: grand total, \$4,209.70. September, Ford & Johnson Co., \$1,516.45, \$1,015.30, total, \$2,531.75; and United States Rattan Co., \$1,437.00: grand total, \$3,968.75.

Disbursements of Maintenance Fund Appropriated by Legislature, from October 1, 1910, to September 30, 1911.

Item.	Oct. 1910.	Nov. 1910.	Dec. 1910.	Jan. 1911.	Feb. 1911.	March. 1911.	April. 1911.	May. 1911.	June. 1911.	July. 1911.	Aug. 1911.	Sept. 1911.	Total.
Trustees.....			\$300 00			\$300 00			\$300 00			\$300 00	\$1,200 00
Officers.....	\$727 50	\$727 50	754 92	\$760 82	\$760 82	760 82	\$810 82	\$910 82	760 82	\$910 82		798 38	9,594 86
Guards.....	3,544 79	3,618 15	3,674 49	3,693 48	3,554 76	3,598 06	3,498 80	3,442 30	3,366 49	3,001 10	3,050 84	3,120 33	41,093 62
Other employees.....	1,425 16	1,300 00	310 00	380 00	305 00	380 00	333 00	225 00	375 00	295 00	305 00	225 00	3,850 16
Fresh meats.....	1,325 36	1,291 47	1,065 86	962 08	1,153 22	1,324 64	1,300 25	1,062 90	1,333 52	575 45	655 83	729 79	12,980 37
Salt meats and lard.....	647 24	370 16	502 07	418 31	423 03	470 77	273 47	204 13	222 66	580 47	571 35	306 59	5,110 19
Fresh oysters, etc.....	2 19	3 00	32 40	5 90	3 15	1 95	1 38	49 58	46 22	1 12		96	167 85
Butter, eggs and poultry.....	101 24	530 75	165 06	86 89	78 42	126 40	248 76	66 78	67 70	130 94	127 47	123 84	1,854 25
Vegetables.....	372 70	1,546 40	4 40	3 33	2 00	1 44	1 52	2 35	180 56	148 93	394 37	565 03	3,223 03
Fresh fruit.....	16 20	6 94	39 36	10 05	2 00	4 60	2 00		2 10	1 40	13 10	46 74	144 49
Dried fruit.....	512 70	216 25	62 80	251 85	218 75	198 25	133 80	296 25	303 20	178 63	30		2,372 78
Canned goods.....	43		15	60		45	10 25	1 35	8 85	1 15	15	1 35	24 73
Bread, cereals and beans.....	4,130 83	378 10	119 46	355 83	131 22	1,082 31	1,082 34	181 70	357 32	967 48	165 36	72 53	9,024 48
Vinegar and syrup.....	74 46	1 30	22 45	49 95		26 51	13 89	75 83	12 87	64 94	178 88	22 69	543 77
Tea, coffee and sugar.....	364 37	240 96	191 35	324 12	65 93	175 68	215 42	173 50	324 02	330 93	89 52	1 40	2,497 20
Milk.....	156 00	124 44	140 87	141 22	124 44	161 22	124 88	163 23	138 08	25 70	151 28	121 56	1,572 92
Other food supplies.....	66 13	12 98	25 85	49 64	19 70	23 53	77 18	13 41	4 45	3 43	4 68	6 28	307 26
Clothing and cloth.....	941 31	1,185 07	94 08	367 45	178 75	758 94	1,139 79	148 21	130 62	140 31			5,084 53
Shoes.....	322 66	22 80	17 60	263 95	263 95	6 85		232 60	11 00	65 73	26 40		989 84
Tailor and sewing machine supplies.....				25	5 13	9 03							14 16
School supplies.....	2 00	6 00			10 13	1 50	23 15	3 00		1 50			1 25
Library, newspapers, etc.....	100 21	83 19	290 15	25 36	34 16	84 92	47 26	46 21	150 81	71 05	22 45	7 00	52 78
Furniture, fixtures and bedding.....	370 61	408 56	271 59	78 35	34 54	202 48	53 01	375 14	27 74	106 41	2 90	35	963 87
Laundry supplies.....	502 25	157 80	377 21	51 28	62 16	27 35	112 28	414 75	49 43	48 25	32 95	6 00	1,931 08
Hospital supplies.....	148 09	88 95	69 77	41 33	99 56	89 92	112 28	104 78	91 06	72 52	40 25		958 31
Postage, telegraph and telephone.....	66 79	118 67	87 35	54 97	98 75	56 36	76 64	63 88	67 98	19 79	35 86	36 30	803 34
Freight and transportation.....	87 43	50 55	139 35	44 13	19 55	162 80	21 65	6 65	53 90	6 05	16 15	78 83	687 04
Stable, farm and garden.....	241 63	3 75	250 35	52 31	244 61	368 26	116 30	128 35	21 78	30 64	12 04	30 45	1,500 47
Ice.....								65 27					65 27
Tobacco.....	44 37	60 00	11 00	10 92		1,295 13	62 50		12 50	23 86	6 40		1,526 68
Fuel.....	2,542 92	2,078 67	3,000 59	2,506 82	1,939 38	2,057 73	2,174 52	1,779 45	139 49	52 86	49 90	340 52	18,071 85
Light.....	2 55	2 85		32 80	1 00	3 90	1 80	3 90	1 70	5 30		3 20	59 10
Engineers supplies.....	103 82	21 16	89 77	21 48	24 63	15 58	33 27	15 54	15 77		15 09	15 16	371 27
Insurance.....						35 00							35 00
Unclassified expense.....	13 25	40 90	40 75	1 00	3 30	50 00		1 25	49 50		12 50		212 45
Total.....	\$18,157 19	\$13,699 32	\$12,251 55	\$10,782 77	\$9,942 04	\$13,789 21	\$11,999 40	\$10,308 11	\$8,617 14	\$7,791 76	\$6,935 04	\$6,974 92	\$131,248 45

Classified Expenditures October 1, 1910, to September 30, 1911.

CURRENT EXPENDITURES.	Amount.	Per Capita per Annum.
Administration—		
Trustees.....	\$1,200 00	\$1.1137
Officers.....	10,779 86	10.0045
Guards.....	41,083 62	38.1379
Attendants.....	5,878 79	5.4560
Other employes.....	3,850 16	3.5732
Total.....	\$62,802 43	58.2853
Subsistence—		
Fresh meats.....	\$12,980 37	\$12.0468
Salted meats and lard.....	5,110 19	4.7426
Fish and oysters.....	167 85	.1558
Butter, eggs and poultry.....	1,854 25	1.7209
Vegetables.....	3,223 03	2.9912
Fresh fruits.....	144 49	1.341
Dried fruits.....	2,372 78	2.2021
Canned goods.....	24 73	.0230
Breadstuffs, cereals, beans, etc.....	9,024 48	8.3754
Vinegar and syrup.....	543 77	.5047
Tea, coffee and sugar.....	2,497 20	2.3176
Milk.....	1,572 92	1.4597
Other food supplies.....	307 26	.2851
Total.....	\$39,823 32	\$36.9590
Clothing, Etc.—		
Clothing and cloth.....	\$5,084 53	\$4.7188
Shoes.....	989 84	.9186
Tailor and sewing-room supplies.....	14 16	.0132
Total.....	\$6,088 53	\$5.6506
Office, Domestic and Outdoor Departments—		
School supplies.....	\$1 75	\$0.0016
Library, newspapers, periodicals.....	684 05	.6349
Stationery and printing.....	963 87	.8945
Furniture, fixtures, bedding, etc.....	1,931 68	1.7927
Laundry supplies.....	1,756 90	1.6305
Hospital supplies.....	958 51	.8896
Postage, telegraph and telephone.....	803 34	.7456
Freight and transportation.....	687 04	.6376
Stable, garden, farm, provender, etc.....	1,500 47	1.3925
Ice.....	65 27	.0606
Tobacco.....	1,526 68	1.4169
Paroled prisoners and supervision.....	6,704 11	6.2219
Discharged prisoners (gate money).....	2,567 73	2.3830
Fuel.....	18,671 85	17.3290
Light.....	59 10	.0548
Engineer's supplies.....	371 27	.3446
Insurance.....	35 00	.0325
Other classifications.....	212 45	.1972
Suspended sentence supervision.....	1,560 36	1.4481
Total.....	\$41,061 43	\$38.1081
Ordinary Repairs and Minor Improvements—		
Materials.....	\$4,990 71	\$4.6318
Total.....	\$4,990 71	\$4.6318
Grand total of current expenditures.....	\$154,766 42	\$143.6348
Less earnings paid and due State Treasury.....	99,778 48	92.6019
†Net cost to the State.....	\$54,987 94	\$51.0329
Extraordinary Expenditures—		
New buildings and equipment.....	\$26,854 67	
*Extraordinary improvements.....	1,334 99	
Total.....	\$28,189 66	

*Re-building of factory building destroyed by fire, January 13, 1911

†Based on daily average attendance of 1077.499.

Disbursements of Regular and Specific Appropriations, October 1, 1910, to September 30, 1911.

FUND.	October, 1910.	November, 1910.	December, 1910.	January, 1911.	February, 1911.	March, 1911.	April, 1911.	May, 1911.
Maintenance	\$18,157 19	\$13,689 32	\$12,251 55	\$10,782 77	\$9,942 04	\$13,789 21	\$11,999 40	\$10,308 11
Maintenance per capita		375 39	258 54	238 28	613 06	551 67	212 73	603 75
Ordinary repairs and improvements	400 12	39 84	123 38	294 37	109 77	127 86	520 14	350 01
Discharged prisoners	371 65	589 54	573 99	647 16	690 39	768 96	860 28	789 38
Paroled prisoners and supervision	536 69	278 83	280 00	280 00	450 00	473 93	477 83	592 88
Criminal insane	4 62		10 90		23 55		16 90	
Library		77 35	117 30	45 75	111 58	112 23	130 25	161 78
Suspended sentence cases	162 47		604 13	376 72	1,433 63	522 76	690 50	2,593 31
New cell house	3,706 84	1,394 02			1,378 05	17,020 53	1,681 43	2,493 86
Binder twine	20,334 51	13,780 32	57,407 42	1,439 69		104 49		
*Governor emergency contingent					1,230 50			
Total	\$43,954 09	\$30,244 61	\$71,627 21	\$14,104 74	\$15,982 57	\$33,471 62	\$16,689 46	\$17,893 08

FUND.	June, 1911.	July, 1911.	August, 1911.	September, 1911.	Total Expended.	Reverting to Treasury.	Available Future Use.	Appropriation.
Maintenance	\$7,070 41	\$7,791 76	\$6,935 04	\$5,015 65	\$108,000 00			\$108,000 00
Maintenance per capita	1,546 73	285 50	699 91	148 37	21,289 18	\$2 12		21,291 30
Ordinary repairs and improvements	503 39	285 50	699 91	148 37	4,990 71	9 29		5,000 00
Discharged prisoners	268 65	294 21	23 32	44 55	2,567 73	1,432 27		4,000 00
Paroled prisoners and supervision	707 52	555 99	622 69	536 52	7,889 11	110 80		8,000 00
Criminal insane	573 75	730 00	681 04	780 53	5,878 79	121 21		6,000 00
Library	12 50	409 34	143 46	10 00	631 27	118 73		750 00
Suspended sentence cases	174 78	248 48	112 83	105 56	1,560 36	239 64		1,800 00
New cell house	1,764 01	2,882 21	5,520 97	5,365 57	26,834 67	2 48		26,857 15
Binder twine	3,489 36	1,849 05	1,586 33	1,900 27	124,360 82		\$55,293 20	179,654 02
*Governor emergency contingent				1,959 27	3,294 26			3,294 26
Total	\$16,111 10	\$15,046 54	\$10,325 59	\$15,866 29	\$307,316 90	\$2,036 63	\$55,293 20	\$364,646 73

*Fire loss, factory building, January 13, 1911, \$1,334.99; maintenance, \$1,959.27.

Receipts of Binder Twine Plant, Showing Auditor's Quietus, from October 1, 1910, to September 30, 1911.

DATE.	Quietus Number.	Pounds.	Amount.
November 1, 1910.....	2771	111,775	\$7,686 56
December 1 1910.....	2966	21,700	1,484 56
January 1, 1911.....	3170	27,920	1,933 18
January 30, 1911.....	3273	38,950	2,704 48
March 1, 1911.....	3405	31,460	2,186 15
April 1, 1911.....	3633	3,675	267 61
April 29, 1911.....	3850	56,450	1,317 29
June 3, 1911.....	4007	50,200	3,220 45
July 3, 1911.....	4184	161,830	10,251 45
July 31, 1911.....	4235	61,600	3,811 09
August 31, 1911.....	4265	95,630	6,005 25
September 26, 1911.....	4359	246,760	16,068 76
September 30, 1911.....	4448	37,050	2,389 28
Total.....		945,000	\$59,326 11

Binder Twine Industry from Establishment, March, 1906, to September 30, 1911.

ITEM.	Amount.	Total.
DEBITS—		
Sisal.....	\$563,163 20	
Machinery and repairs.....	37,239 37	
Oils, grease and colorings.....	17,220 05	
Sacks and tags.....	14,344 58	
Fuel.....	24,831 39	
Labor (free).....	38,544 82	
Freight, transportation, postage, telephone, telegraph, stationery, printing.....	18,593 87	\$713,937 28
Net gain.....		2,756 75
Total.....		\$716,694 03
CREDITS—		
Inventory September 30, 1911—		
Machinery and tools.....	\$30,972 35	
Materials.....	43,743 00	
Manufactured product.....	91,843 48	\$166,558 83
Receipts—		
Cash.....	\$524,563 55	
Bills Receivable—		
Notes and accounts.....	25,571 65	550,135 20
Total.....		\$716,694 03

Statement of Officers and Employees.

POSITION.	Number Em- ployed.	Salary per Month.	Additional.
Trustees.....	4	\$25 00	Traveling expenses.
Warden.....	1	229 16	Residence, light, heat.
Deputy warden.....	1	200 00	Residence, light, heat.
Assistant deputy warden.....	1	100 00	
Clerk.....	1	140 00	Residence, light, heat.
Physician.....	1	125 00	
Chaplain.....	1	141 66	
Priest.....	1	50 00	
Engineer.....	1	150 00	
State agent.....	1	90 00	
Assistant state agent.....	1	100 00	
Supervisor suspended sentence cases.....	1	80 00	
Steward.....	1	110 00	
Store-keeper.....	1	110 00	
Stenographer.....	1	75 00	
Receiving and discharging officer.....	1	80 00	
Cell house officers.....	3	80 00	
Turnkey.....	1	75 00	
North gate keeper.....	1	80 00	
Farmer.....	1	75 00	
Mail clerk.....	1	80 00	
Hospital officer.....	1	70 00	
Attendant (day) insane.....	3	75 00	
Shop officers.....	22	75 00	
Tower guards.....	5	65 00	
Building superintendent.....	1	6 00	per day.
Night captain.....	1	100 00	
Night gate keeper.....	1	80 00	
Cell house officers.....	3	80 00	
Yard patrol.....	1	80 00	
Yard relief.....	1	80 00	
Guard room officer.....	1	80 00	
Hospital officer.....	1	80 00	
Attendants insane (night).....	2	75 00	
Binder twine superintendent.....	1	150 00	
Foreman binder twine.....	2	80 00	
Binder twine salesman.....	2	100 00	
Tower officers (criminal insane).....	2	65 00	
Total.....	76		

NOTE—Officers not married room at the institution, without charge.

Farm Products Showing Value from October 1, 1910, to September 30, 1911.

MONTH.	Value.
October, 1910.....	\$280 41
November, 1910.....	159 18
December, 1910.....	135 16
January, 1911.....	115 55
February, 1911.....	128 63
March, 1911.....	181 31
April, 1911.....	181 11
May, 1911.....	385 53
June, 1911.....	155 95
July, 1911.....	155 55
August, 1911.....	177 73
September, 1911.....	152 07
Total.....	\$2,208 18

Farm and Garden Products from October 1, 1910, to September 30, 1911.

PRODUCT.	Amount Raised.	Estimated Value of Product Used in Kitchen.
Cucumbers, dozen.....	82	\$4 10
Pickels, barrels.....	81 $\frac{1}{2}$	16 50
Sauer kraut, barrels.....	51 13	102 60
Cabbage, pounds.....	15,184	151 84
Onions, bushels.....	399 $\frac{1}{3}$	199 17
Onions, new, dozen.....	6,478	129 56
Beets, bushels.....	250 $\frac{1}{12}$	100 07
Radishes, bushels.....	276	138 25
Turnips, bushels.....	293 $\frac{1}{2}$	88 00
Parsnips, bushels.....	559 $\frac{2}{3}$	251 78
Beans, green, bushels.....	155	99 20
Peas, green, bushels.....	10	6 40
Lettuce, pounds.....	6,225	124 50
Celery, stalks.....	420	8 40
Corn, green, dozen.....	1,090 $\frac{1}{2}$	87 32
Milk, gallons.....	549	83 84
Pork, pounds.....	1,829	196 70
Lard, pounds.....	1,242	162 58
Squash.....	144	14 40
Rhubarb, dozen.....	1,078	112 98
Pumpkin.....	137	13 70
Tomatoes, bushels.....	2918 $\frac{1}{4}$	116 65
Total.....		\$2,208 18

Clothing and Other Garments Made and Issued by the Store from October 1, 1910, to September 30, 1910, also Articles Condemned.

ITEM.	Issued.	Condemned.
Coats, first grade.....	408	593
Vests, first grade.....	82	320
Pants, first grade.....	924	932
Caps, first grade.....	543	559
Coats, second grade.....	23	129
Vests, second grade.....		63
Pants, second grade.....	63	125
Caps, second grade.....	34	77
Coats, third grade.....		
Vests, third grade.....		
Pants, third grade.....		
Caps, third grade.....		
Overcoats, first grade.....		
Shirts, hickory.....	2,028	1,889
Shirts, under.....	1,263	1,211
Shirts, night.....	687	442
Shirts, bakers.....	24	23
Drawers.....	1,258	1,119
Aprons, denim.....	542	580
Aprons, white.....	131	212
White coats.....	48	63
White caps.....	16	
Socks, pairs.....	5,752	5,721
Shoes, pairs.....	950	826
Sneak shoes.....	72	73
Sheets.....	752	647
Towels, officers'.....	396	410
Towels, prisoners'.....	1,456	1,052
Towels, roller.....	117	210
Pillowslips.....	759	553
Bedticks.....	24	
Bedspreads.....	8	7
Pillowticks.....		6
Blankets, double.....	235½	211
Discharge suits.....	251	
Canvas gloves, pairs.....	1,001	748
Leather gloves, pairs.....	39	93
Leather mittens, pairs.....	13	6
Discharge shirts.....	250	
Discharge overcoats.....	129	
Denim suits.....	200	
Jumpers.....	40	12
Overalls.....	48	231
Suspenders.....	120	

Summary of Statistics for the Year Ending September 30, 1911.

MOVEMENT OF POPULATION.

ITEM.	Males, Total.
Number prisoners enrolled October 1, 1910.....	1,096
Number received during the year.....	322
Number released during the year.....	347
Number enrolled September 30, 1911.....	1,071
Daily average attendance for the year.....	1,077 499
Average number of officers and employes.....	76

EXPENDITURES.

ITEM.	Per Capita.	Total.
Ordinary Expenditures—		
Salaries and wages.....	\$58 2853	\$62,802 43
Subsistence.....	36.9590	39,823 32
Clothing.....	5.6506	6,088 53
Office, domestic and outdoor expenses.....	38.1081	41,061 43
Ordinary repairs.....	4.6318	4,990 71
Total.....	\$143.6348	\$154,766 42
Extraordinary Expenditures—		
New buildings and equipment.....	\$26,854 67	
Extraordinary improvements.....	1,334 99	
		28,189 66
Grand total expenditures.....		\$182,956 08
Receipts and earnings.....		99,778 48
Net total expenses.....		\$83,177 60

Population of the Indiana State Prison from October 1, 1910, to September 30, 1911.

ITEM.	Males.	Total.
In prison October 1, 1910.....		1,096
Received from courts.....	248	
Returned parole violators.....	50	
Returned parole violators by Reformatory.....	4	
Returned parole violators by Governor.....	3	
Temporary return from parole.....	3	
Returned temporary parole by Governor.....	6	
Transfer from Reformatory.....	3	
Escape returned.....	1	
Witnesses returned from court.....	4	
		322
Total.....		1,418
Discharged, expiration.....	10	
Paroled, Board of Parole.....	247	
Paroled, Reformatory Board.....	17	
Paroled by Governor.....	28	
Temporary parole by Governor.....	5	
Pardon by Governor.....	8	
Release, temporary return from parole.....	4	
Died.....	20	
Remanded by court.....	4	
Escape.....	1	
Witnesses to court.....	3	
		347
Remaining in prison, September 30, 1911.....		1,071
Average daily count.....		1,077 499

Movement of Population of the Indiana State Prison from Opening Year 1860 to September 30, 1911.

YEAR.	Beginning Each Year.	From Courts.	Retaken Escape.	Transfer from Reformatory.	Return Parole Violator.	Returned Violators by Reformatory.	Return Witness, Temporary Paroles, etc.	Total Received in Year.	Total.	Discharged.	Pardon and Parole by Governor.	Transferred, Remanded Witnesses.	Escaped.	Died.	Paroled, Board of Parole.	Paroled, Board of Parole, Reformatory.	Total Released in Year.	Remaining, Close of Year.	Daily Average Attendance.
1860	147	17		189				189	189	23	10	2	4	3			42	147
1861	253	34		200				217	364	69	21	5	13	3			111	253
1862	131	48						34	287	95	17	8	11	3			156	131
1863	103	42						48	142	17	8	1	11	3			39	103
1864	114	62						42	145	25	2	1	6	2			31	114
1865	117	130	2					64	178	46	6	1	6	2			52	117
1866	195	186						130	247	36	9	1	3	3			105	195
1867	276	132	2					186	381	79	15	2	5	4			126	276
1868	318	146	1					134	410	62	14	13	1	2			92	318
1869	339	109	2					147	465	193	24	4	1	4			126	339
1870	318	109	2					111	450	97	22	8	1	4			132	318
1871	295	168	1					101	413	88	21	7	3	6			118	295
1872	341	175	2					168	463	94	13	7	2	6			122	341
1873	368	244	2					177	513	108	24	7	4	2			130	368
1874	511	329	1					246	614	125	20	8	1	4			159	455
1875	603	297	1					279	734	114	31	13	1	4			223	511
1876	646	299	1					330	841	205	29	5	7	3			258	603
1877	605	301	1					297	900	203	24	12	14	4			254	646
1878	577	327	1					286	945	282	40	14	2	9			340	605
1879	542	301	3					286	891	287	41	10	4	4			340	542
1880	577	327	1	1				304	846	202	45	14	4	5			249	577
1881	626	308	3					274	851	350	15	5	4	5			279	626	577
1882	566	307						328	900	248	10	11	2	10			280	566	627
1883	703	362	1					301	921	327	8	9	1	8			355	703	689
1884	634	364	2					418	985	274	15	3	1	8			296	689	702
1885	697	290						367	1,057	322	12	3	1	13			354	703	701
1886	634	364						363	1,064	335	15	3	1	13			367	697	685
1887	748	387						290	987	314	16	4	1	11			353	748	727
1888	748	387	2					364	998	270	9	5	1	11			296	702	681
1889	748	387						389	1,091	314	15	4	3	7			343	748	751
1890	748	370						370	1,120	341	21	8	2	13			385	748	751

MOVEMENT OF POPULATION—Continued.

YEAR.	Beginning Each Year.	From Courts.	Retaken Escape.	Transfer from Reformatory.	Return Parole Violator.	Returned Violators by Reformatory.	Return Witness, Temporary Paroles, etc.	Total Received in Year.	Total.	Discharged.	Pardon and Parole by Governor.	Transferred, Remanded Witnesses.	Escaped.	Died.	Parole, Board of Parole.	Paroled, Board of Parole, Reformatory.	Total Released in Year.	Remaining, Close of Year.	Daily Average Attendance.
1891	735	416						416	1,152	323	11	8	2	6			352	800	784
1892	800	378						378	1,178	366	22	11	2	14			412	763	794
1893	763	469	1					470	1,233	340	36	12	3	16			392	841	780
1894	841	506	1					507	1,348	388	28	13	8	18			440	908	902
1895	808	441	4					445	1,349	423	40	13	9	10			498	881	888
1896	851	427						427	1,278	396	21	9	3	17			436	842	799
1897	842	404		412				816	1,658	414	4	336	5	8	31		774	884	899
1898	884	234		77				316	1,200	363			5	11	101		418	782	789
1899	769	222	5	41	6			270	1,052	159	11	1	3	5	13		283	769	768
1900	782	224	2	51	18			287	1,056	112	4	5	2	11	166		234	822	800
1901	822	254	1	51	31			293	1,157	91	10	1	3	13	110		281	864	851
1902	864	261	2	34	38			293	1,084	61	1	14	3	25	232		361	796	841
1903	751	217	1	89	34	3	9	289	1,181	53	7	5	2	15	173	14	267	833	774
1904	823	203	2	1	32	4	5	349	1,100	73	7	5	2	12	159	27	285	896	888
1905	896	274	2		39	6	4	324	1,220	62	2	17	3	10	164	24	270	950	918
1906	950	229	3	23	36	5	4	277	1,227	40	3	15	2	17	86	9	165	1,062	1,051
1907	1,062	271	1		38	5	18	339	1,401	78	4	15	1	14	137	10	273	1,128	1,095
1908	1,128	291	3	23	40	6	23	363	1,491	51	48	15	3	12	189	17	341	1,150	1,117
1909	1,150	224			38	6	9	277	1,427	27	48	15	1	15	208	18	331	1,096	1,112
1910	1,096	248			50	4	16	322	1,418	10	36	16	1	20	247	17	347	1,071	1,077
1911																			

Number Committed for Various Crimes During the Past Five Years.

CRIMES.	1907.	1908.	1909.	1910.	1911
Accepting bribe as juror.....	0	0	1	0	0
Administering poison.....	0	0	1	0	0
Arson.....	1	0	4	4	3
Assault and battery with intent to commit felony.....	1	1	3	2	1
Assault and battery with intent to kill.....	16	9	12	18	13
Assault and battery with intent to commit rape.....	5	10	4	11	9
Assault and battery with intent to rob.....	1	4	1	0	1
Assault and battery with intent to commit sodomy.....	0	0	0	0	1
Assault and battery with intent to commit manslaughter.....	0	0	1	0	1
Assault and battery with intent to murder.....	0	0	0	0	8
Attempt to bribe public officer.....	0	0	0	0	1
Attempt to procure miscarriage.....	0	1	0	1	0
Attempted rape.....	0	0	0	1	0
Bigamy.....	5	0	3	2	3
Blackmail.....	1	0	0	2	1
Bribing a juror.....	0	0	1	0	0
Burglary.....	13	32	13	10	12
Child desertion.....	0	0	0	1	3
Conspiring to commit felony.....	2	2	0	0	1
Child stealing.....	0	0	0	1	0
Depositing and exploding dynamite.....	0	0	0	0	1
Embezzlement.....	6	9	3	8	5
Entering car to steal.....	0	0	0	1	0
Enticing for immoral purposes.....	0	1	0	0	1
Entering house to commit felony.....	2	11	16	7	12
Failure to support children.....	0	3	3	0	1
Failure to provide.....	0	0	0	1	0
False pretense.....	3	6	4	1	2
False statement of credit.....	0	1	0	0	0
Forgery.....	12	11	15	15	10
Forgery and uttering forged paper.....	0	0	0	1	0
Grand larceny.....	50	49	39	25	34
Grand larceny and embezzlement.....	0	0	0	1	0
Horsestealing.....	0	0	0	0	3
Housebreaking.....	3	0	0	3	1
Incest.....	2	5	4	7	4
Impersonating an officer.....	0	1	0	0	0
Issuing fraudulent draft.....	0	0	0	1	0
Manslaughter.....	5	13	12	7	8
Murder.....	21	14	29	15	19
Obtaining money on false or fraudulent check.....	1	0	1	3	0
Obtaining money under false pretense.....	0	0	7	6	0
Passing false or fraudulent check.....	0	0	0	2	3
Petit larceny.....	51	84	76	46	61
Perjury.....	2	1	0	1	1
Presenting false statements.....	0	0	0	0	1
Rape.....	7	6	11	10	15
Receiving stolen goods.....	4	5	4	0	0
Robbery.....	9	5	11	5	4
Sodomy.....	5	4	2	0	4
Subornation of perjury.....	0	0	0	1	0
Uttering false or forged check.....	1	3	4	0	2
Uttering forged note.....	0	0	0	1	0
Wife desertion.....	0	3	6	1	1
Wife and child desertion.....	0	0	0	2	1
Total.....	229	294	291	224	252

Statistics of Prisoners Committed During Year, October 1, 1910, to September 30, 1911.

	NATURE OF OFFENSE.			
	Against the Person.	Against Property.	Against Public Order, etc.	Total.
TOTAL CHECKED.	81	132	39	252
Age—				
Under 20.....	2			
20 and under 30.....	12	9		
30 and under 40.....	39	90	20	
40 and under 50.....	15	24	12	
50 and under 60.....	7	7	4	
60 and under 70.....	5	2	2	
70 and under 80.....	1	1	1	
Totals.....	81	132	39	252
Color—				
White.....	59	108	37	
Colored.....	22	24	2	
Totals.....	81	132	39	252
Birthplace—				
Indiana.....	43	49	13	
South Carolina.....		1	1	
Tennessee.....	7	3		
Kentucky.....	6	15	3	
Illinois.....	3	9	2	
New York.....	1	4	2	
Virginia.....	2	3	1	
Ohio.....	1	15	6	
Arkansas.....	1	1		
Pennsylvania.....		8	3	
Missouri.....	3	2	1	
Rhode Island.....	1			
Massachusetts.....		1	1	
North Carolina.....	1	1		
Indian Territory.....		1		
Louisiana.....	1	2		
Iowa.....			1	
Delaware.....		1		
Michigan.....		2		
West Virginia.....			1	
Connecticut.....		1		
Wisconsin.....	1	1		
Mississippi.....	1	1		
Scotland.....		1	1	
Canada.....	1	2		
Germany.....	4	2	1	
Russia.....	1	2		
Macedonia.....	1			
Roumania.....		1	1	
Belgium.....		1		
England.....	1	2		
Hungary.....	1	1		
Holland.....			1	
Ireland.....	1			
Totals.....	81	132	39	252
Term of Sentence—				
Life.....	26			
Ten to twenty years.....		12		
Five to fourteen years.....	5			
Three to fifteen years.....		3		
Two to twenty-one years.....	16	2	5	
Two to fourteen years.....	31	17	20	
Two to five years.....			3	
One to fourteen years.....		38		
One to eight years.....		57		
One to seven years.....			6	
One to five years.....	1	1	3	
One to three years.....			2	
Criminal insane.....	2	2		
Totals.....	81	132	39	252

INDIANA STATE PRISON STATISTICS—Continued.

	NATURE OF OFFENSE.			
	Against the Person.	Against Property.	Against Public Order, etc.	Total.
TOTAL CHECKED.....	81	132	39	252
Number of Former Commitments—				
One.....	7	25	6	
Two.....	3	5		
Three.....		3	1	
Four.....		1		
Five.....	1			
None.....	70	98	32	
Totals.....	81	132	39	252
Mental Condition—				
Active.....	24	55	21	
Fair.....	19	32	6	
Dull.....	33	41	11	
Feeble-minded.....				
Insane.....	5	3		
Epileptic.....		1	1	
Totals.....	81	132	39	252
Physical Condition—				
Good.....	49	94	26	
Fair.....	22	31	11	
Poor.....	10	7	2	
Totals.....	81	132	39	252
Age at Leaving Home—				
Five to ten years.....	9	15	2	
Eleven to fifteen years.....	23	27	11	
Sixteen to twenty years.....	19	44	13	
Twenty-one years and over.....	29	46	13	
Unknown.....	1			
Totals.....	81	132	39	252
Social Condition of Parents—				
Parents living together.....	12	23	10	
Parents living separate.....	5	3		
Father dead.....	13	28	5	
Mother dead.....	18	20	6	
Both parents dead.....	30	55	18	
Unknown.....	3	3		
Totals.....	81	132	39	252
Social Conditions—				
Single.....	32	48	8	
Married, living together.....	28	47	26	
Widowed.....	8	11	1	
Divorced.....	6	16	2	
Separated.....	7	10	2	
Totals.....	81	132	39	252
Educational Standing—				
Illiterate.....	9	14	1	
Able to read and write.....	30	38	13	
Reached fourth grade.....	28	50	9	
Reached eighth grade.....	11	16	4	
High school.....	3	8	5	
College.....		6	7	
Totals.....	81	132	39	252
Use of Intoxicants—				
Temperate.....	14	12	12	
Moderate.....	28	36	13	
Excessive.....	39	84	14	
Totals.....	81	132	39	252

INDIANA STATE PRISON STATISTICS—Continued.

	NATURE OF OFFENSE.			
	Against the Person.	Against Property.	Against Public Order, etc.	Total.
TOTAL CHECKED	81	132	39	252
Use of Tobacco—				
Don't use it.....	9	8	4	
Chew.....	13	15	9	
Smoke.....	14	17	3	
Chew and smoke.....	45	92	23	
Totals.....	81	132	39	252
Smoke cigarettes.....	17	52	7	
Addicted to drugs.....	3	6	2	
Exempt from both.....	60	74	30	
Totals.....	81	132	39	252
Church Affiliation—				
American Methodist Episcopal.....	2	2		
Roman Catholic.....	10	15	3	
Heavenly Recruits.....	1			
Christian.....		3		
German Lutheran.....	2			
Jewish.....		2	1	
Menonite.....	1			
Baptist.....	1	3		
Protestant Slavish.....	1			
Methodist.....	2	4	3	
Greek.....	1	1		
Presbyterian.....			2	
Church of God.....			1	
Lutheran.....		1	1	
Central Christ.....		1		
Salvation Army.....		1		
Episcopal.....	1			
None.....	59	99	28	
Totals.....	81	132	39	252
Occupation When Convicted—				
Idle.....	14	50	11	
Employed.....	67	82	28	
Totals.....	81	132	39	252
Previous Occupation—				
Horse trader.....		1		
Laborer.....	30	41	11	
Bookkeeper.....	1	2		
Bartender.....	1	2		
Salesman.....		3	1	
Janitor.....	1	2		
Tinner.....	1	1		
Painter.....	2	5	2	
Shoe worker.....		2		
Porter.....	3	3		
Cook.....		7		
Tailor.....		2	1	
Pressman.....		2		
Stationary fireman.....	3	1		
Iron moulder.....	2	4		
Cement worker.....	1	1		
Coal miner.....	5	2		
Farmer.....	11	3	1	
Civil engineer.....		1		
Blacksmith.....	2	1	1	
Cloth presser.....		1		
Barber.....		2	2	
Machinist.....	1	3	2	
Chair maker.....	1			
R. R. conductor.....		2		
Baker.....	1	1		
Gardener.....		1		
Cook and baker.....		1		

INDIANA STATE PRISON STATISTICS—Continued.

	NATURE OF OFFENSE.			
	Against the Person.	Against Property.	Against Public Order, etc.	Total.
TOTAL CHECKED.....	81	132	39	252
Previous Occupation—Continued—				
R. R. fireman.....		1		
Coal dealer.....			1	
Pipe fitter.....			1	
Telegraph operator.....	2			
Steeplejack.....		1		
Weaver.....	1			
Dentist.....			2	
Stationary engineer.....	1	3		
Clerk.....	1	1	1	
Druggist.....			2	
Chef.....	1			
Engineer.....		1	1	
Glass worker.....	1			
Junk dealer.....		2		
Carpenter.....	2	3	1	
Butcher.....		2	1	
Boiler maker.....		1		
Upholsterer.....			1	
Plasterer.....		1		
Insurance agent.....		2	1	
Electrician.....	1	1	2	
Contractor.....	1		1	
Constable.....	1			
Stock dealer.....			1	
Oil well driller.....		1		
Plate glass worker.....	2			
Stone cutter.....	1	1	1	
Hobo.....		1		
Real estate agent.....		1		
Huckster.....		1		
Chair finisher.....		1		
Musician.....		1	1	
Waiter.....		1		
Engraver.....		1		
Minister.....			1	
Paper hanger.....		1		
Attorney at law.....		1	1	
Furniture finisher.....		1		
Hostler.....	1			
Totals.....	81	132	39	252
Associates—				
Good.....	4	9	10	
Fair.....	57	73	23	
Bad.....	20	50	6	
Totals.....	81	132	39	252
Nativity of Parents—				
Native born.....	60	99	28	
Foreign born.....	16	22	9	
Mother native, father foreign.....	1	4		
Mother foreign, father native.....			2	
Unknown.....	4	6		
Totals.....	81	132	39	252
Habits of Parents—				
Intemperate father.....	30	50	15	
Intemperate mother.....		1		
Both parents intemperate.....				
Both parents temperate.....	46	75	23	
Unknown.....	5	6	1	
Totals.....	81	132	39	252

Indiana State Prison—County Representation.

RECEIVED FROM COURTS FROM OCTOBER 1, 1909, TO SEPTEMBER 30, 1911.

COUNTIES.	For Crimes Against the Person.	For Crimes Against Property.	For Crimes Against Public Order, Etc.	Died During Year.	Released During Year.	Present at Close of Year.
Adams.....	1					2
Allen.....	4	4			10	30
Bartholomew.....				1	1	12
Benton.....					1	1
Blackford.....	2				1	9
Boone.....	1				1	5
Brown.....						1
Carroll.....	1				1	3
Cass.....	1		1		5	12
Clark.....					7	16
Clay.....	2				5	6
Clinton.....	1				4	6
Crawford.....						1
Daviess.....	1				4	10
Dearborn.....		2			2	7
Decatur.....					3	3
Dekalb.....	1		1		1	6
Delaware.....	4	6		1	9	38
Dubois.....	1				2	2
Elkhart.....	3	5		1	6	26
Fayette.....					1	6
Floyd.....	2	2			8	16
Fountain.....		5		1	4	10
Franklin.....					1	2
Fulton.....						3
Gibson.....			1		4	15
Grant.....	1	3	2		9	25
Greene.....	1	2				13
Hamilton.....					3	4
Hancock.....	2	1			2	9
Harrison.....						2
Hendricks.....	1	2			2	10
Henry.....	2	4	1	1	4	12
Howard.....	1		1		2	8
Huntington.....	1		1		9	15
Jackson.....	1	1			3	9
Jasper.....			2			2
Jay.....						2
Jefferson.....		2			1	11
Jennings.....	2				2	3
Johnson.....			1			10
Knox.....	2	6	2	1	9	24
Kosciusko.....		1			3	3
Lagrange.....						3
Lake.....	3	11	1	1	8	34
Laporte.....	1	1	2		12	27
Lawrence.....			2	1	3	11
Madison.....	4	1	1		6	28
Marshall.....				1	2	5
Marion.....	9	28	9	7	47	170
Martin.....		1			4	9
Miami.....	2	1			4	14
Monroe.....					4	5
Montgomery.....		1			2	8
Morgan.....					1	7
Newton.....	1				1	1

County Representation—Continued.

COUNTIES.	For Crimes Against the Person.	For Crimes Against Property.	For Crimes Against Public. Order, Etc.	Died During Year.	Released During Year.	Present at Close of Year.
Noble.....	2	4	1		6	14
Ohio.....			1	1	1	4
Orange.....						2
Owen.....	2					
Parke.....					1	2
Perry.....	1					5
Pike.....					3	7
Porter.....		1			2	9
Posey.....					4	6
Pulaski.....						
Putnam.....					2	5
Randolph.....		2	1		4	14
Ripley.....						5
Rush.....						3
Saint Joseph.....	1	2	1	1	8	23
Scott.....						2
Shelby.....		1			6	17
Spencer.....		1	1			5
Starke.....					2	2
Steuben.....			1		1	2
Sullivan.....	2	2			3	11
Switzerland.....					1	
Tippecanoe.....	2	5			5	25
Tipton.....						5
Union.....	1				1	3
Vanderburgh.....	5	8	4	1	14	52
Vermillion.....		1				6
Vigo.....	5	8			23	62
Wabash.....		1	1		1	5
Warren.....						2
Warrick.....		1			1	1
Washington.....						2
Wayne.....	1	3			4	24
Wells.....		1			3	5
White.....				1	1	5
Whitley.....		1				4
Total.....	82	131	39	20	321	1,071

I beg to acknowledge the cordial relationship that you have invariably sustained toward me, and the very able counsel that you have given me on many and various occasions.

Respectfully submitted,

WALTER H. DALY,
Clerk.

MEDICAL DEPARTMENT.

PHYSICIAN'S REPORT.

PHYSICIAN'S OFFICE, INDIANA STATE PRISON,
MICHIGAN CITY, INDIANA.

To the Honorable Edward J. Fogarty, Warden:

Sir—I have the honor to submit the annual report of the Medical Department of the Indiana State Prison for the fiscal year ending September 30, 1911.

My service to this institution began April 20, 1911, and the reports contained herein previous to my incumbency are matters of hospital record. At the time that I assumed the duties of prison physician I found the general health of the inmates to be good and the sanitary conditions excellent.

The State Laboratory of Hygiene has, from time to time, examined the drinking water; the analysis of each sample has shown it to be free from pathogenic bacteria. Proper precaution was exercised as warm weather approached to protect the prison against flies and mosquitoes. As far as possible the breeding places of the mosquito were destroyed, and all water pools, drains and fire barrels were treated with oil; results were gratifying, as very few cases of malaria were reported.

There have been no epidemics. Within the last four months two cases of erysipelas developed; these cases were, apparently, in no way related, as they were ninety days apart. Isolation and quarantine were enforced as far as was possible with the present facilities. Uneventful recoveries were made in both instances.

The food has been abundant and excellent in quality. The Warden has so carefully considered and planned the dietary that a healthful variety of food has been afforded. No two meals have been exactly alike during the same week. The tedious monotony which characterizes the serving of food in many institutions is not in evidence here. This detailed attention to so important a feature is a great factor in the prevention of disease, especially tuberculosis, which so frequently affects the inmates. Medical treatment, unless reinforced by the proper selection and service of food is of little value.

I very respectfully call your attention to the most imperative needs of this department. A roof garden and solarium for those suffering from tuberculosis should be constructed on the roof of our present hospital in order that those afflicted with this dread disease may not be a source of danger to their fellow prisoners. By this means segregation and isolation will be accomplished and the proper amount of fresh air and sunshine can be afforded.

The present operating room needs remodeling. A tile floor should be laid and new plumbing installed. The present annex should be altered and fitted out as a dressing room for minor surgical cases, thereby making it possible to reserve the operating room for major surgery without unnecessary danger to life from the lack of surgical cleanliness.

An isolation ward should be constructed for the quarantine of infectious and contagious diseases, to prevent their possible dissemination throughout the prison. Though in the past the institution has been very fortunate in regard to the spread of contagious diseases we should not be lax in measuring up to the needs and standards of modern medicine.

The following tables are based on an average daily population of 1,077.499 :

SUMMARY No. 1.

Hospital Record from October 1, 1910, to September 30, 1911.

ITEM.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total.
Number in hospital October 1, 1910.....													30
Number in hospital on 1st of month.....	30	31	30	30	32	32	29	31	28	29	29	29	
Number admitted each month.....	13	11	15	18	7	10	13	12	14	19	17	18	167
Number discharged each month.....	12	8	15	14	5	11	10	11	12	14	15	20	150
Number of deaths each month.....		4		2	2	2	1	1	1	5	2		20
Number in hospital September 30, 1911.....													27
													Average for Year.
Average number in sick line.....	23.5	21.6	29.3	30.0	29.8	26.2	28.0	23.0	20.8	23.4	20.0	20.3	24.6
Average number in in sick cell.....	1.5	2.4	4.4	5.6	7.1	9.2	4.8	5.2	2.5	1.8	1.9	2.0	4.1

SUMMARY No. 2.

Record of Deaths from October 1, 1910, to September 30, 1911.

Register Num.	Age.	Color.	Nativity.	Crime.	Sen- tence.	Condition When Admitted.		Cause.	Date.	Time Served.		
						Mental.	Physical.			Yrs.	Mo.	Days.
2591	35	C	Iowa	Burglary.	2-14	*	Good.	Lobar pneumonia (double).	Nov. 1, 1910	8	4	23
4398	70	C	Indiana	Assault and battery with intent to kill by stabbing	2-14	Dull	Poor	Hypostatic pneumonia and aortic and mitral insufficiency	Nov. 10, 1910	1	1	2
3273	58	W	Macedonia	Murder	Life.	Active	Good	Chronic interstitial nephritis	Nov. 25, 1910	5	0	28
3325	38	C	Indiana	Robbery	2-14	Active	Good	Pulmonary tuberculosis	Nov. 25, 1910	4	11	11
4371	31	W	Indiana	Pettit larceny	†	†	Good	Auto-intoxication	Nov. 2, 1911	1	2	20
3660	34	W	Kentucky	Entering stable to commit a felony	2-14	Active	Good	Stricture of esophagus.	Jan. 10, 1911	3	9	21
2445	38	C	Kentucky	Assault and battery to kill	2-14	Dull	Good	Tubercular peritonitis.	Feb. 14, 1911	9	3	15
4632	21	W	Indiana	Murder	Life.	Dull	Good	Suicide	Feb. 16, 1911	0	2	15
1896	57	W	America	Robbery	2-14	Fair	Good	Pulmonary tuberculosis.	Mar. 19, 1911	10	3	9
4559	32	C	Tennessee	Grand larceny	1-14	Fair	Fair	Acute pericarditis	Mar. 25, 1911	0	8	10
4586	31	C	South Carolina	Entering house to commit a felony	2-14	Dull	Fair	Acute nephritis	April 20, 1911	0	6	10
3851	38	W	Massachusetts	Burglary	10-20	Fair	Good	Suicide	May 13, 1911	3	4	18
3700	65	W	Ohio	Pettit larceny	1-8	Active	Poor	Chronic ulcerative colitis	June 17, 1911	4	1	9
1853	62	W	America	Grand larceny	1-14	Active	Good	Arterio-sclerotic dementia	July 4, 1911	10	8	11
4193	39	W	Indiana	Robbery	2-14	Dull	Good	General paralysis of insane	July 4, 1911	2	6	6
4413	36	W	Michigan	House breaking	1-14	Dull	Good	General paralysis of insane	July 23, 1911	1	7	22
4003	32	W	Tennessee	Entering house to steal	2-14	Dull	Fair	Acute nephritis	July 26, 1911	2	9	14
3682	35	W	Indiana	Grand larceny	1-14	Active	Fair	Pulmonary tuberculosis	July 27, 1911	4	3	12
4515	36	C	Kentucky	Assault and battery with intent to murder	2-14	Fair	Fair	Pulmonary tuberculosis.	Aug. 10, 1911	1	2	24
4629	43	C	Tennessee	Assault and battery with intent to commit murder	2-14	Dull	Poor	Cerebral hemorrhage	Aug. 21, 1911	0	9	0

*Epileptic dementia.

†Hospital for criminal insane.

‡Feeble minded and insane.

SUMMARY No. 3.

Report of Surgical Cases Treated from October 1, 1910, to September 30, 1911.

Abscess	3
Abscess alveolar	3
Amputation of finger	1
Bubos gonorrheal	2
Bubos syphilitic	2
Burns, second degree	2
Burns, third degree	4
Calculi biliary	2
Calculi cystic	2
Carbuncle	1
Cellulitis	10
Cerebral hemorrhage	1
Chalazion	3
Chondroma	1
Conjunctivitis, acute catarrhal	10
Contagioso impetigo	1
Circumcision	1
Cystitis, catarrhal	3
Dacryocystitis	2
Dental caries	62
Dislocation of humerus.....	1
Eczema	3
Epithelioma	2
Erysipelas	2
Fissure in ano	3
Fracture of clavicle	1
Fracture of finger	1
Furunculosis	3
Gonorrhea, acute	3
Hemorrhoids	7
Herpes progenitalis	2
Herpes zoster	2
Hordeolum	4
Hydrocele	3
Icthyosis	1
Inguinal hernia	21
Iritis, specific	3
Keratitis	1
Lipoma	1
Myringitis	2
Necrosis of tibia	1
Necrosis of metacarpal bone	1
Neuritis traumatic	1
Onychia	2
Orchitis	2

Otitis media purulent	3
Paronychia	2
Pediculosis pubis	2
Polypi aural	2
Pott's disease	1
Refraction of eyes for glasses.....	140
Removal of foreign bodies in eye.....	60
Sprain of ankle	2
Sprain of knee	1
Stricture of esophagus	1
Stricture of penis	25
*Suicides	2
Sycosis tenia	1
Syphilis, secondary	10
Trachoma	1
Tubercular adenitis	8
Ulcer, tibial	1
Ulcer, varicose	3
Vaccination	252
Verruca, specific	1
Wounds, incised	21
Wounds, punctured	1
Wounds, lacerated	6
Wounds, contused	30
 Total	 765

1. Asphyxiation, by hanging. 1. Fracture of skull by fall.

SUMMARY No. 4.

Report of Medical Cases Treated from October 1, 1910, to September 30, 1911

Acute bronchitis	7
Acute gastritis	2
Acute rhinitis	10
Acute nephritis	6
Autointoxication	2
Cardiac asthma	2
Catarrhal dysentery	6
Cirrhosis of the liver.....	2
Diabetes mellitus	3
Follicular tonsilitis	3
Heat prostration	3
Lobar pneumonia	3
Locomotor ataxia	3
Malaria, intermittent	4
Migraine	2
Mitral insufficiency	2
Mitral stenosis	1
Neurasthenia	1
Pleurisy, acute	3
Rheumatism, articular	4
Rheumatism, muscular	12
Sciatica	2
Stomatitis, catarrhal	4
Tuberculosis, pulmonary	10
Total	96

SUMMARY No. 5.

Defectives Classified and Sociological Conditions, from October 1, 1910, to September 30, 1911.

ITEM.	Total.	Per Cent.
Number of men examined.....	252	
Number of men giving personal history of mental defect, insanity, epilepsy or feeble-mindedness.....	19	7.5
Number of men giving family history of mental defect, insanity, epilepsy or feeble-mindedness.....	43	17.0
Number of men giving history of previous arrests or convictions.....	183	72.6
Number of men giving a history of criminal relatives.....	16	6.3
Number of men giving a history of relatives in state institutions, not penal.....	18	7.1
Number of men committed by courts to Indiana Hospital for Insane Criminals.....	4	1.5

Indiana Hospital for Insane Criminals.

The insane and defective population continues to increase as formerly. Reasons for such increase is clear when we stop to consider the factors which operate to unbalance the minds of criminals. Many of them are inherently defective. "The constitutionally inferior" can be recognized easily in prison populations. Alcoholic indulgences, venereal excesses, bad heredity and poor or evil environment play an important part in their lives. By virtue of their confinement in prison they are compelled to live a quiet, regular life. The unsatisfied craving for novelty, excitement, intoxication, remains. The strong stimuli of the "Wanderlust" is absent, and the attempts of the prisoner to adequately adjust himself to his life of confinement results many times in failure. The unstable character exhibits his organic and inherent defects, and active psychoses develops. In brief he fails to fit in.

Indiana is fortunate to have a hospital for such prisoners as are insane and such persons as are criminally insane. The last term "criminally insane" has frequently been objected to on the ground that those who are insane can not commit crime because the criminal intent is lacking. This term would include those persons who violate the laws of organized society which protects life and property, and who are pronounced to be irresponsible for such acts.

The public at large is awakening to the fact that the above mentioned class of persons should not be confined in the ordinary hospitals for the reputable insane for two great reasons. First, most hospitals are not constructed or their administration so directed to adequately care for them. Second, the reputable insane should not have forced on them the association of an unwanted class.

The most perplexing problem which confronts the authorities of all penal institutions is the care of those cases which live on the border line of responsibility and insanity. This class should have proper custodial care in institutions constructed for that purpose solely, where they will be protected from danger and society at large be safe from their delinquencies.

A new cabinet has been constructed for the filing of complete records of the inmates of the Indiana Hospital for Insane Criminals. A uniform standard of examination which includes family and personal history, physical, mental and neurological conditions has been compiled from various sources to meet the needs of this institution.

Within a short period of time, by the above mentioned examination we will be able to classify the various forms of psychoses with which we have to deal.

In conclusion I wish to express my appreciation of the assistance and advice you have given me.

Respectfully,

PAUL E. BOWERS,

Physician in Charge.

DEPARTMENT OF MORAL AND RELIGIOUS INSTRUCTION.

CHAPLAIN'S REPORT.

CHAPLAIN'S OFFICE, INDIANA STATE PRISON,
MICHIGAN CITY, IND., September 30, 1911.

To the Hon. E. J. Fogarty, Warden:

Sir—I have the honor to present to you my report for the year ending September 30, 1911.

As in other years I have made it my duty to interview all new prisoners. If, in this interview with the new prisoner, I can get him to see that the institution which he has entered had nothing to do with his coming; that its officers have nothing against him personally and will be his friends and advisers if he will let them; that the institution is not maintained for the purpose of humiliating him unnecessarily but its every regulation is for his help if he will so receive it; that the hand of authority into which he has been delivered is friendly—then I have made his path a little easier and, incidentally, have helped the discipline of the institution. This first interview also affords me the beginnings of my data in the prisoner's case and as my acquaintance with him ripens I add to the information gained at the first interview such facts as may be useful in dealing with the case. This first interview often means much to the prisoner, who comes with very wrong ideas as to the prison and the treatment which he may expect to receive here.

After this first interview it is my privilege to keep in touch with the prisoner. I promptly grant audience to all who make request to see me. Often these requests from the prisoner grow entirely out of his desire to talk over his case with me. Often also unexpected opportunities of service come to me in this way. A man does not lose all his private interests when sent to prison. It is right that he should feel he has a friend here to whom he may bring these personal interests. Because of my personal contact with the men and my interest in their affairs I am sure my preaching to them and my teaching in the Bible class are far more helpful and acceptable than if this personal contact were lacking. It is my endeavor to become helpfully acquainted with the inner life of my parishioners and to give to those who will receive it a sane moral and religious instruction which is tempered by my contact with them and my knowledge of them.

I have in all the years of my service undertaken to know thoroughly every man's case. To this end I have access to all the information gathered in each case and endeavor to answer accurately the requests of the parole board for specific information in any case under consideration. I appreciate the confidence the parole board has shown in my knowledge of individual cases and know the great majority of the prisoners feel that in the

chaplain they have one who will fairly make known to the parole board the best as well as the worst that is known about them. This is a difficult work, requiring all of a man's common sense, tact and discretion.

Each year the correspondence of my department increases. Many mothers and wives of prisoners are writing to know about their loved ones. The world calls the men here—burglars, pickpockets, thieves, forgers and criminals of every description.— But when parents, wives, or brothers and sisters of these men write me they say—"my son," "my husband," "my brother." I receive enough of such letters daily to keep my heart tender and to constantly remind me that I am dealing with "my brothers." These inquiries are never neglected and it is a pleasure to put all the courtesy and kindness possible into the answers. There is also a considerable correspondence with paroled and discharged men. They are under no obligation to report to me but often write to report their successes or to tell their troubles and ask my advice.

It would make this report too lengthy to speak in detail of the religious work attempted. The work of the Bible class is open to all who may care for it. The average attendance there has been over one hundred each Sunday. A course of study is outlined and Topic Cards are printed for three months in advance, giving to the members of the class daily Bible readings leading up to the Sunday topic. In the preaching service the aim has been to so present the Word of God as to awaken the conscience, convince the judgment and influence the life. I am convinced that the prisoners respect the fact that I seek to bring to them each Sunday a worthwhile message and to make it plain enough for the average understanding. I have good reason to believe that some have found in the Bible class and the Sunday worship an inspiration toward the power of a Christian life.

We have no fund at our disposal for special forms of entertainment and instruction, but during the year have been able to arrange for special addresses, entertainment and music as follows: Addresses by the late De Witt Miller, Hon. Martin Krueger of Michigan City, Messrs. Harry B. Darling and Edward Molloy of LaPorte, Indiana. Entertainments were provided on holidays. Three Victrola concerts were donated by Mr. Schuyler Powell of Michigan City. A unique entertainment was given by Ferranti, the magician, on Thanksgiving Day, 1910, and a vaudeville entertainment on Decoration Day, 1911, the latter secured by you as a donation from a theatrical manager in South Bend. For special music on Sundays we are indebted to Miss Nellie Foster, soprano soloist, of Boston, Mass.; Messrs. E. O. Excell and C. E. Gabriel, of Chicago, and the Ames Band, of Michigan City. The Indiana State Prison Band has given six most acceptable band concerts during the year.

In my judgment there ought to be an appropriation of at least \$300 a year for entertainment. Wholesome amusement provided at regular intervals would be very helpful. Men who are free feel the need of such relaxation. Men confined inside prison walls need it much more.

Good music is also most helpful here and should be a feature of every proper occasion. We are much in need of new band instruments and our chapel should be equipped with a good pipe organ. I feel that the next Legislature could not do a more helpful thing than to grant an appropriation sufficient to install a good pipe organ and to purchase new band instru-

ments, and will appreciate it if you and your Board of Trustees will consider the matter of asking for such an appropriation.

For sermons by visiting ministers I am indebted to the Rev. D. D. Hoagland of Attica, Indiana, who occupied the chapel pulpit on October 2, 1910, and to the Rev. H. D. Borley of Michigan City, Indiana, who preached twice during the year in exchange with the Chaplain and supplied the chapel pulpit during the Chaplain's absence on Prison Sunday and on vacation.

Services for those of the Catholic faith are held in the chapel each Sunday morning under the direction of Father Ellering and his assistant, Father Bleckmann, of Saint Mary's Catholic Church of Michigan City.

I am convinced that the work of the department of Moral and Religious Instruction is fully as important as any other connected with the prison and of value to the institution and to society as well as to the prisoner. I wish to express my appreciation of your cordial support of the work as at present conducted and of the co-operation given me by all the officers of the institution.

Respectfully,

ORVILLE L. KIPLINGER,

Chaplain.

MICHIGAN CITY, INDIANA, November 12, 1911.

To the Hon. Edward J. Fogarty, Warden:

Sir—In presenting this, my first report, I wish to record my gratitude to you and the other officers of the institution for the co-operation given me in my work.

Knowing that the influence of religion is a powerful factor to the individual, and especially to the convict, who frequently has never known, from childhood up, any other law than his own passions, no other model than perverse individuals. I have endeavored to give such instruction and help as would enable him to become again a trusted and respected member of society. I have tried to show the convict that the law intends something more than mere punishment by depriving him of his liberty. I have tried to explain to him that it was to teach him a lesson long forgotten, or perhaps never known.

Every Sunday I have conducted Catholic services and preached on Catholic and wholesome subjects to all who attended. In addition to the regular Sunday service, I have interviewed upwards of 400, Thursday evening of each week being set aside for this purpose. Special religious instructions were given every Friday evening. Generally from twenty to thirty attended. All who so desire may attend these instructions. I have visited the sick in the hospital when informed that there were any of our faith confined therein, or any who desired the ministrations of a priest. Once every three months I have heard confessions and distributed Holy Communion. Each time from fifty to sixty responded. I have received letters from relatives of the inmates and have answered the same, giving cheer to their sick hearts, with the knowledge of the improvement noted in their son or brother in prison. I have frequently received letters from

men who have been released, in which there has always been a word of thanks for the assistance I have given and the cheer I have offered. This fact has always been a source of great satisfaction to me, for I have interpreted it as a sign of sincerity. I have tried as far as possible to keep in touch with paroled men, encouraging them to do good and to avoid evil companions. I have always been ready to see any man who desired or requested it, whether he be of the Catholic faith or not, for I have been spurred on with the knowledge that, although in prison, the convict still has an immortal soul, which is worth my while to save if possible.

On September 17th last, the Rt. Rev. Herman J. Alerding, D.D., Catholic Bishop of Fort Wayne, visited the prison and administered the sacrament of confirmation to a class of eighteen. These men had been carefully instructed during the year. The Rev. Bary O'Neill, C. S. C., editor of the "Ave Maria," delivered the sermon on the occasion. High Mass was celebrated in the presence of all of the inmates, while the choir of St. Mary's Church rendered appropriate and excellent music.

Again expressing my sincere thanks to the warden and the other officers for the kindness shown towards me, I wish to assure you of my deep interest in the future.

Respectfully yours,

REV. JOHN H. BLECKMANN,
Assistant Catholic Chaplain.

PAROLE DEPARTMENT.

STATE AGENT'S REPORT.

INDIANA STATE PRISON,
September 30, 1911.

To the Honorable Edward J. Fogarty, Warden:

Sir—I respectfully present the following tables, which give a complete résumé of the work of the Parole Department for the past fiscal year, and for the entire parole period:

Showing Work of the Department for the Year

Reporting monthly and quarterly October 1st, 1910.....	197	197	
Paroled by the Board during the year.....	247		
Paroled by the Governor during the year.....	26		
Delinquents reinstated during the year.....	1		
Awaiting release October 1st, 1910.....	2		
Total cases under care of the Department during the year.....			473
Released on parole during the year.....	266		
Released from institution by expiration of sentence.....			
Discharged by the Board before being released from the institution.....	6		
Parole revoked by the Governor.....			
Awaiting release September 30, 1911.....	3		
Died in prison while awaiting release on parole.....	1	276	473
*Returned for violation during the year.....	32		
Violated parole and at large during the year.....	53	85	
Granted final discharges during the year.....	160		
Pardoned by the Governor.....	7		
Sentences expired while on parole.....			
Died while on parole.....	4	171	
Reporting monthly September 30, 1911.....	197		
Reporting quarterly September 30, 1911.....	17	214	
Awaiting release September 30, 1911.....	3	3	473

*Fifteen men were also returned during the year who were delinquent and "at large" previous to October , 1910.

Earnings and Expenses for Fiscal Year Ending September 30, 1911.

Earnings of paroled prisoners.....	\$85,143 66
Expenses of paroled prisoners.....	70,558 13
Savings of paroled prisoners.....	\$14,585 53

Recapitulation to September 30, 1911.

Total number of paroles granted.....			2,324
Total number of paroles revoked.....	17		
Awaiting release September 30, 1911.....	3	20	
Total number released on parole.....	2,304		2,324
Total returned for parole violation.....	282		
*Total violated parole and at large.....	197	579	
Total number granted discharges.....	1,339		
Total sentences expired on parole.....	132		
Total number died while on parole.....	40	1,511	
Reporting monthly September 30 1911.....	197		
Reporting quarterly September 30, 1911.....	17		
		214	2,324
Per cent. of violation.....			25.13

*Of the total number of violators who are enumerated as "delinquent and at large", ten are located in other institutions, jails, etc.

Earnings and Expenses for Entire Parole Period.

Earnings of paroled prisoners.....	\$647,136 47
Expenses of paroled prisoners.....	494,057 55
Savings of paroled prisoners.....	\$153,078 92

PAROLE DEPARTMENT.

Showing Work of Parole Officer.

1910.	Employment Contracts Secured.	Visits to Paroled Men.	Miles by Railroad.	Miles by Traction.	Miles by Livery.
October.....	13	45	1,111	500	64
November.....	17	56	1,561	591	38
December.....	20	45	1,332	531	30
1911.					
January.....	24	47	1,486	379	61
February.....	24	60	1,383	289	44
March.....	23	68	1,320	346	66
April.....	20	55	2,099	529	40
May.....	17	35	2,736	389	113
June.....	13	55	2,106	377	31
July.....	7	32	3,553	129	60
August.....	10	44	4,004	144	74
September.....	4	17	2,222	92	100
Totals.....	192	559	24,913	4,296	721

PAROLE DEPARTMENT—FINANCIAL STATEMENT.

Showing Monthly Expenses for Fiscal Year Ending September 30, 1911.

MONTH.	Car Fare, Parole Officer.	Hotel and Meals.	Livery.	Postage, Telephone, Telegraph.	Rewards.	Salaries.	Stationery and Supplies.	Car Fare, Paroled Prisoners.	Gate Money.	Total.
1910.										
October.....	\$50 77	\$28 40	\$14 00	\$39 65	\$225 00	\$70 70	\$38 17	\$70 00	\$536 69
November.....	80 90	42 50	8 50	35 55	225 00	2 69	68 40	130 00	599 54
December.....	77 85	33 90	6 00	18 26	225 00	35 18	67 80	110 00	573 99
1911.										
January.....	81 91	22 10	5 00	15 70	\$25 00	270 00	32 37	80 08	115 00	647 16
February.....	94 71	28 01	7 75	88 46	25 00	190 00	4 26	87 20	165 00	690 39
March.....	156 54	40 50	11 50	37 89	86 50	190 00	3 13	92 90	150 00	768 96
April.....	256 23	72 85	9 00	50 80	25 00	190 00	7 75	88 65	160 00	860 28
May.....	144 10	38 25	20 75	62 62	50 00	225 00	37 36	81 30	130 00	789 38
June.....	205 59	44 60	22 75	39 14	65 00	225 00	24 44	31 00	50 00	707 52
July.....	177 37	39 75	9 00	33 90	26 00	190 00	10 62	24 35	45 00	555 99
August.....	205 05	39 50	9 00	38 54	43 00	190 00	42 60	55 00	622 69
September.....	115 29	25 05	14 50	18 84	25 00	270 00	31 74	11 10	25 00	536 52
Totals.....	\$1,652 31	\$455 41	\$137 75	\$479 35	\$370 50	\$2,615 00	\$260 24	\$713 55	\$1,205 00	\$7,889 11

PROBATION DEPARTMENT.

Suspended Sentence Cases.

Reporting monthly October 1st, 1910	70		
Unsatisfactory cases, not reporting and not revoked October 1, 1910	8		
Commitments received during the year	51	78	
Awaiting employment October 1, 1910	3		
		54	
Total cases under care of the department			132
Committed to prison during the year	5		
Discharged by the courts	39		
Reporting monthly September 30, 1911	68		
Awaiting employment September 30, 1911	2		
		70	
Unsatisfactory cases, not reporting and not revoked September 30, 1911	13		
Revoked and at large during the year	5		
		18	132
Per cent of violations to date		23.33	

Earnings and Expenses for Fiscal Year Ending September 30, 1911.

Earnings of suspended sentence paroled men	\$40,969 33
Expenses of suspended sentence paroled men	33,646 39
Savings of suspended sentence paroled men	\$7,322 94

Recapitulation of Suspended Sentence Cases.

Total commitments received			240
Released to employer	238		
Awaiting release	2	2	
			240
Total committed to prison	31		
Revoked and at large	12		
Unsatisfactory cases, not revoked	13		
		56	
Discharged by Board of Parole	48		
Discharged by the courts	66		
		114	
Reporting monthly October 1, 1911		68	240
Per cent. of violations to date			23.33

Earnings and Expenses for Entire Suspended Sentence Parole Period.

Earnings of suspended sentence paroled men	\$110,230 64
Expenses of suspended sentence paroled men	94,438 34
Savings of suspended sentence paroled men	\$15,792 30

PROBATION DEPARTMENT.

Showing Work of Probation Officer.

MONTH.	Employment Contracts Secured.	Visits to Paroled Men.	Miles by Railroad.	Miles by Traction.	Miles by Livery.
1910.					
October.....	7	11	1,203	418	25
November.....	2	6	582	290	
December.....	1	12	828	234	
1911.					
January.....		13	414	110	
February.....	7	2	306	275	
March.....	1	1	370	396	
April.....	10	21	362	835	
May.....	9	12	928	132	5
June.....	5	8	386	241	
July.....	2	6	485	253	
August.....	4	9	230	372	12
September.....	2	8	384	10	
Totals.....	50	109	6,478	3,566	12

PROBATION DEPARTMENT—Financial Statement.

Showing Monthly Expenses for Fiscal Year Ending September 30, 1911.

MONTH.	Car Fare, Probation Officer.	Hotel and Meals.	Livery.	Postage, Tele- phone, Tele- graph.	Salaries.	Station- ery and Supplies.	Totals.
1910.							
October.....	\$49 30	\$28 35	\$4 00	\$0 82	\$80 00		\$162 47
November.....	14 65	10 80	50	1 40	50 00		77 35
December.....	26 25	21 05			70 00		117 30
1911.							
January.....	11 15	9 60			25 00		45 75
February.....	15 45	11 20	25	1 35	83 33		111 58
March.....	12 00	14 40	2 50		83 33		112 23
April.....	32 50	11 10		1 10	85 55		130 25
May.....	23 20	8 75	1 50		128 33		161 78
June.....	26 30	18 00	2 15		128 33		174 78
July.....	45 45	13 40	1 00	30	163 33	\$25 00	248 48
August.....	17 60	9 15	2 75		83 33		112 83
September.....	14 45	7 75			83 36		105 56
Totals.....	\$288 30	\$163 55	\$14 65	\$4 97	\$1,063 89	\$25 00	\$1,560 36

SCHOOL AND LIBRARY DEPARTMENT.

PAROLE OFFICE, INDIANA STATE PRISON.
MICHIGAN CITY, IND., September 30, 1911.

To the Honorable Edward J. Fogarty, Warden:

Sir—In submitting this school report for the fiscal year ending September 30, 1911, I wish to concur in the sentiments you expressed at the close of our last term concerning the advisability of making a new departure by installing classes of instruction in as many different trades as consistent with the time available and the advantages afforded by the addition to our library of a complete set of standard instruction books in all branches of technical works; these classes to be conducted in the form now in vogue among recognized trade-schools. This would undoubtedly result in much moral gain, and be of such material benefit eventually, to all inmates who would take advantage of these branches of instruction, as to be beyond comparison with our present worthy but insufficient mode.

That the sixty or more men who have attended our course of instruction have been greatly benefited is clearly shown by the large number of these men who were unable to write their names at the beginning of the term, but who are now in no need of assistance in writing their letters. It was touchingly appealing to the sympathies to see the almost childish glee with which some have expressed their feeling of thankfulness, after having succeeded in writing their first letter and while apprising me of the fact.

Observing the pathetic struggles of these men of full physical body development and undeveloped mental capacities, I have been enabled to discern that within their breasts lies dormant the craving of a praiseworthy ambition—of some day elevating themselves to honorable positions in the field of advanced trades by the aid of the knowledge gained through the acquirement of the arts of reading and writing. In no case have I found that the road seemed too long or too hard to travel, or that hope had fled to make way for despair. It is worthy of mention that these ambitions, awakened through newly acquired knowledge, though they remain unrealized, will ultimately result in the making of more honest, more capable, and in every respect, thoroughly regenerated citizens, and redound to the credit of the State of Indiana.

Library.

The value of the library has been enhanced by the addition of 1,424 new books, making a total of 6,178 books available for circulation.

A new catalogue which is now in the course of preparation will be ready within a few weeks.

An average of 900 men are taking advantage of the privilege to draw two books weekly.

Respectfully submitted,

J. M. STIPP,
State Agent—Acting Librarian.

Conclusion.

I wish to thank you and the Board of Trustees for the generous and highly valued advice tendered me in the administration of my duties.

Respectfully,

J. M. STIPP,
State Agent.

REPORT

OF THE

Indiana State Normal School

FOR THE

Fiscal Year Ending September 30, 1911

TO THE GOVERNOR

INDIANAPOLIS :

WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING

1912

THE STATE OF INDIANA,
EXECUTIVE DEPARTMENT,
JANUARY 1, 1912.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,
INDIANAPOLIS, January 15, 1912.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,
Auditor of State.

JANUARY 25, 1912.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,
Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, January 26, 1912.

L. G. ELLINGHAM,
Secretary of State.

Received the within report and delivered to the printer January 26, 1912.

ED D. DONNELL,
Clerk Printing Board.

OFFICERS.

BOARD OF TRUSTEES.

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JAMES H. TOMLIN.....	Evansville, Indiana.
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WILLIAM H. ARMSTRONG, President.....	Indianapolis, Indiana.
JOSHUA JUMP, Secretary.....	Terre Haute, Indiana.
WILLIAM R. McKEEN, Treasurer.....	Terre Haute, Indiana.

Departments and Faculty.

Department of Philosophy of Education—

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Department of Psychology, Introspective and Experimental—

Howard Sandison, Head of Department.

Charles Homer Bean, Assistant Professor.

H. Leroy Carmack, Laboratory Assistant.

Department of United States History and Civil Government—

Ellwood W. Kemp, Head of Department.

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Sarah Swihart, Assistant Professor.

Department of Mathematics—

Oscar L. Kelso, Head of Department.

Frank R. Higgins, Assistant Professor.

James H. Baxter, Assistant Professor.

Department of Latin—

John J. Schlicher, Head of Department.

Frederick H. Weng, Assistant Professor.

Department of Physical Education (Men)—

Bertram E. Wiggins, Head of Department.

Department of German—

Frederick G. Mutterer, Head of Department.

Rose M. Cox, Assistant Professor.

Department of Music—

Gladys Botsford, Head of Department.

Department of Physical Education (Women)—

Edith A. Bailey, Head of Department.

Department of Ancient, Mediaeval and Modern History—

Frank S. Bogardus, Head of Department.

William O. Lynch, Assistant Professor.

Department of Zoology and Botany—

Ulysses O. Cox, Head of Department.

Roscoe R. Hyde, Assistant Professor.

Clem O. Thompson, Laboratory Assistant.

Department of Manual Training—

Merit L. Laubach, Head of Department.

Ivah M. Rhyan, Assistant Professor.

John Hines, Laboratory Assistant.

Dean of Women—

Charlotte B. Schweitzer.

Department of Reading and Public Speaking—

Charles B. Bacon, Head of Department.

Mary E. Moran, Assistant Professor.

Library—

Arthur Cunningham, Head of Department.

Anne C. Keating, Assistant Librarian.

Mabel E. Marshall, Assistant Librarian.

Helen M. Crane, Assistant Librarian.

Carabelle Greiner, Assistant Librarian.

Training School. High School—

Elizabeth M. Crawford, Principal and Teacher of English.

Walter W. Woodrow, Teacher of Science.

Mabel Bonsall, Teacher of Mathematics.

Caroline Schoch, Teacher of German.

Minnie E. Weyl, Teacher of History.

Howard Byrn, Teacher of Latin.

Training School. Grades—

Telulah Robinson, Grades Seven and Eight.

Alma McCrum, Grades Five and Six.

Edith Bader, Grades Three and Four.

Alice O. Woody, Grades One and Two.

Country Training School—

Elizabeth Underwood.

OTHER EMPLOYES.

Minnie E. Hill.....	Registrar.
Emma A. Smith.....	Clerk.
Jessie A. Sigler.....	Bookkeeper.
Henry L. Wilson.....	Head Engineer and Janitor.
William A. Miller.....	Assistant Engineer and Janitor.
Edward Holland.....	Assistant Engineer.
Laura Baker.....	Assistant Janitor.
Maurice Brindley.....	Assistant Janitor.
Emma Brindley.....	Assistant Janitor.
Edward Austin.....	Yardman.
Joseph P. Meriwether.....	Night Watchman.
Henry Gripenstroh.....	Janitor Training School.
Elizabeth Walker.....	Assistant Janitor Training School.
Charles W. Call.....	Janitor Library.
Lotta Latta.....	Janitor Country Training School.
Ora Shadley.....	Watchman Parsons Field.

Report of the President of the Board of Trustees.

To the Governor of Indiana:

The statute creating the Indiana State Normal School contains the following provisions:

Section 13. "Said Board of Trustees shall biennially make a report to the Legislature, setting forth the financial and scholastic condition of the school; also making such suggestions as in their judgment will tend to the improvement of the same; and in the years in which there is no session of the Legislature, they shall make a report of the scholastic condition of the school to the Governor on or before the first Monday in January."

Although the law does not require the Board of Trustees to make a report of the financial condition of the institution in the years in which there is no session of the Legislature, it has been the custom of this board to include in its report such financial statement.

The report which I am herewith transmitting includes brief reports of the president of the Board of Trustees, the president of the faculty, the secretary of the Board of Trustees and the treasurer of the institution. It also contains a report of the Board of Official Visitors for the year 1910-1911.

By reference to pages 11-14 of the report of the president of the faculty, it will be noted that the year ending September 30, 1911, was a very prosperous one, 2,422 different students having been enrolled. Attention is also called to the fact that the academic year has been extended to a four-quarter year to meet the increasing demands for instruction. The school now continues in session during forty-eight weeks, having only short intermissions between terms. The attendance during the first full summer quarter exceeded our expectations, and it is probable that this will be made a permanent feature of the school.

Four years ago the school put into force what it terms a College Course for Teachers. This is simply a more advanced course of study to prepare teachers for the higher grades of public school work. The enrollment in the College Course has also exceeded our expectations, the enrollment during the past year amounting to 182 different students.

Attention is also called to the report of the president concerning the enlargement and extension of the library, which has come to be one of the most extensive and important features of the school.

The various courses of study, with explanations of the same, are set out on pages 20-24 of the report, and on pages 25-29 will be found the report of the Board of Official Visitors for the year 1910-1911. It will be noted that this Board of Official Visitors finds the school on its scholastic side in excellent condition.

The report of the secretary of the board will be found on pages 31-33, and the report of the treasurer on page 34. These financial reports are in entire agreement.

On behalf of the Board of Trustees, I desire to thank the Governor of Indiana for his cordial co-operation with the authorities of the State Normal School in their effort to make the institution in every way all that the original statute contemplates—an institution for the most thorough, systematic training of teachers for the public schools of Indiana.

Respectfully submitted,

WM. H. ARMSTRONG,
President Board of Trustees.

Report of the President of the Faculty.

Hon. William H. Armstrong, President Board of Trustees:

As required by the statute, I am herewith submitting a brief report of the scholastic condition of the Indiana State Normal School for the fiscal year ending September 30, 1911. As this is not a legislative year, the report is chiefly statistical and embraces no recommendations such as are made in the years when the General Assembly meets.

Only one addition to the teaching force has been made within the last year, and only one enlargement of the field of the school's work. The demand for teachers of Domestic Science has been growing from year to year, and it has become so positive and general in recent years that it was deemed necessary to furnish instruction of this kind in the State Normal School. Cutting, fitting, sewing, etc., have been added to the school's curriculum and a competent instructor employed to do this work. That this addition met a real demand is shown by the fact that all the classes in this department are well filled.

The faculty consists of the President, the Vice-President, twenty other heads of departments, thirteen assistant professors, a Dean of Women, eleven training school teachers, four assistant librarians and five laboratory assistants—fifty-seven in all. In spring and summer terms the attendance is very greatly increased and it is necessary to employ from fifteen to twenty temporary teachers during these terms. The rural and smaller town schools close their work at about the time of the opening of the spring term and large numbers of teachers enter the Normal School at this time for the work of the spring and summer terms. In the spring of 1911 there were 1,672 students in actual attendance, besides 246 pupils in the training school.

ATTENDANCE.

As will be shown by the statistical table on page 17, the year ending September 30, 1911, has been a very prosperous one for the school. During this year there were in attendance no fewer than 2,422 different students, representing every county in Indiana. In former years the school confined its work to the usual academic

year of about thirty-seven weeks. About fifteen years ago it added a summer term six weeks in length. This term began with an attendance of 110, but the attendance increased very rapidly until it has become one of the most important terms of the school year. For the last four or five years there has been a demand for an extension of the summer term to a full quarter of twelve weeks. In the summer term of 1911 the school year was extended by adding six weeks to the summer term, thus giving the institution a four-quarter year of twelve weeks each. The institution is thus in session during forty-eight weeks of the year. A large number of students took advantage of this added opportunity to do twelve weeks' work during the summer term. Many teachers, particularly those employed in the city schools and other schools that continue in session eight or ten months, desire to spend twelve weeks in study during the summer vacation. The extension of the summer term to a full quarter affords them this opportunity, and it is expected that the attendance during the second half of the term will increase from year to year. This addition, of course, increases the necessary expenses of the institution, but it is important that the school serve in the fullest measure all classes of teachers, and it is believed that the additional outlay is amply justified.

COLLEGE COURSE FOR TEACHERS.

Four years ago the institution organized an advanced course of study for teachers of high schools. This course is termed the "College Course for Teachers." It is not in strictness a college course of study, although the subjects pursued are, in the main, the same as those pursued in the college. This course is planned to meet the specific needs of high school teachers. About one-fourth of the work done is in the field of pedagogical or professional instruction—Educational Psychology, Principles and Methods of Education, History of Education, Experimental Psychology, Child Study, Observation and Practice in Training Schools, etc. All the usual academic studies pursued are taken up and considered from the teacher's point of view. It is in every way a strictly pedagogical or professional course for teachers. In the first year 120 students were enrolled in this course and four persons, by reason of the advanced standing to which they were entitled, were graduated. In the year 1909-1910, 182 students were enrolled in the College Course and twenty persons completed this course and graduated. This College Course for Teachers has met a very substantial need.

and will undoubtedly grow from year to year in respect of attendance and influence upon the school work of the State.

THE LIBRARY.

In the last report attention was called to the completion and occupancy of the handsome new library building. While the building has never been fully occupied, on account of the lack of funds for its proper equipment and management, nevertheless it has been well used from the day of its opening, January 1, 1910, and the means are gradually being supplied from the regular funds for all necessary purposes. It is a satisfaction to know that the building was wisely planned in every detail and is a gem of architecture.

During the early fall a fourth tier of stack was installed, which was needed not only for a better arrangement of the books, but also for carrying out the original plans of making connections with the second floor of the building. This improvement brings into much better use all the rooms on that floor, though it incidentally strains our present library force to superintend so much space. Stacks were also placed on the east and west walls of the large reading-room on the main floor, where are now stored the most-used general reference books. With space for two additional tiers of stack in the book-room and other available space about the building, it is evident that the institution is amply and well provided in this respect for the years to come.

Furthermore, it has been the purpose of the board to decorate the walls of the library with suitable pictures. Lately, a painting by an American master of art, J. C. Johansen, was purchased, and it is hoped that others may be added from year to year. Certainly there is no more effective method of training the esthetic ideals of teachers than the exhibition of real art.

At the present time the library contains about fifty-five thousand volumes that have been selected with reference to the work of the various departments of instruction and general cultural value. The usefulness of the collection is greatly enhanced by close classification of the books on the shelves and by a catalogue of authors, titles and subjects. The work of indexing the contents of books has necessarily progressed more slowly, since the work has been done for the most part by a single person. Among other classes of books the public documents of State and Nation need thorough indexing and it would be desirable to prepare a separate catalogue of children's books at the earliest date possible. A considerable part of

the document indexing is being done by the Government and issued in the form of printed cards. However, these cards must be adapted to our catalogue and inserted by skilled hands. Thousands of such cards are annually accumulating and unused because of insufficient help. Most libraries of this size employ from two to three times the number of assistants in the Normal Library.

STATISTICS.

The following table exhibits the number of Normal School students proper enrolled during each term since the organization of the school, the average term enrollment for each year, and the whole number of different students for each year. It also shows the number of pupils in the Normal Training School for each year. The training schools were supported jointly by the city and State until the opening of the school year in September, 1907:

YEAR ENDING.	ENROLLMENT.				Average Term Enrollment.	Whole Number of Different Students for the Year	Normal Training School.	Total Number of Different Students.
	Winter Term.	Spring Term.	Summer Term.	Fall Term.				
October 31, 1870.....	40	66		36	47	98		
October 31, 1871.....	33	84		76	64	141		
October 31, 1872.....	85	131		96	104	224		
October 31, 1873.....	106	197		125	143	286		
October 31, 1874.....	74	279		143	165	304		
October 31, 1875.....	146	218		121	162	322		
October 31, 1876.....	118	183		103	135	382		
October 31, 1877.....	120	246		171	179	329		
October 31, 1878.....	187	413		216	272	592		
October 31, 1879.....	198	385		200	261	530		
October 31, 1880.....	218	372		258	283	578		
October 31, 1881.....	270	478		258	335	732		
October 31, 1882.....	256	424		280	320	694		
October 31, 1883.....	297	539		308	381	773		
October 31, 1884.....	329	542		301	391	777		
October 31, 1885.....	320	583		353	419	868		
October 31, 1886.....	369	612		319	433	909		
October 31, 1887.....	334	639		370	447	942		
October 31, 1888.....	375	629		343	449	936		
October 31, 1889.....	379	689		355	474	968		
October 31, 1890.....	359	671		386	475	1,009		
October 31, 1891.....	421	800		440	552	1,086		
October 31, 1892.....	441	957		441	613	1,160		
October 31, 1893.....	372	930		381	561	1,084		
October 31, 1894.....	436	1,183		508	741	1,459		
October 31, 1895.....	680	981	110	528	574	1,590		
October 31, 1896.....	534	1,167	202	454	589	1,671		
October 31, 1897.....	498	1,351	306	536	673	1,897		
October 31, 1898.....	572	1,189	618	511	723	1,944		
October 31, 1899.....	568	882	663	479	658	1,737		
October 31, 1900.....	501	1,087	536	406	632	1,629		
October 31, 1901.....	446	1,172	673	475	691	1,864		
October 31, 1902.....	511	1,198	726	462	724	1,627		
October 31, 1903.....	457	1,124	600	498	669	1,791		
October 31, 1904.....	504	1,080	634	452	667	1,775		
October 31, 1905.....	463	1,222	751	488	731	1,908		
October 31, 1906.....	498	1,251	854	445	761	2,020		
September 30, 1907.....	483	1,313	1,084	528	852	2,309	213	2,522
September 30, 1908.....	547	1,851	1,347	495	1,059	3,049	243	3,291
September 30, 1909.....	523	1,587	1,150	543	926	2,157	264	2,421
September 30, 1910.....	589	1,575	1,184	478	956	2,180	260	2,440
September 30, 1911.....	506	1,677	769	516	863	2,422	246	2,668

Since the organization of the school in 1870 students have registered from the various counties of the State as follows:

Adams, 75, Allen 161, Bartholomew 369, Benton 232, Blackford 86, Boone 482, Brown 110, Carroll 653, Cass 374, Clark 377, Clay 1,222, Clinton 392, Crawford 117, Daviess 652, Dearborn 289, Decatur 291, Dekalb 100, Delaware 236, Dubois 258, Elkhart 206, Fayette 152, Floyd 206, Fountain 434, Franklin 526, Fulton 208, Gibson 388, Grant 307, Greene 693, Hamilton 312, Hancock 359, Harrison 181, Hendricks 683, Henry 491, Howard 536, Huntington 481, Jackson 324, Jasper 213, Jay 141, Jefferson 211, Jennings 245, Johnson 266, Knox 919, Kosciusko 233, Lagrange 220, Lake 103, Laporte 76, Lawrence 497, Madison 749, Marion 747, Marshall 135, Martin 225, Miami 227, Monroe 142, Montgomery 525, Morgan 751, Newton 232, Noble 142, Ohio 50, Orange 310, Owen 773, Parke 978, Perry 174, Pike 188, Porter 18, Posey 556, Pulaski 174, Putnam 635, Randolph 347, Ripley 324, Rush 268, Scott 141, Shelby 320, Spencer 295, Starke 109, Steuben 60, St. Joseph 166, Sullivan 1,065, Switzerland 163, Tippecanoe 442, Tipton 194, Union 79, Vanderburgh 225, Vermillion 628, Vigo 6,231, Wabash 636, Warren 278, Warrick 359, Washington 509, Wayne 501, Wells 236, White 347, Whitley 141.

WHENCE THEY COME.

During the past year each of ninety-one counties of the State has had representatives in the school as follows:

Adams 4, Allen 3, Bartholomew 24, Benton 17, Blackford 1, Boone 23, Brown 5, Carroll 14, Cass 25, Clark 22, Clay 104, Clinton 13, Crawford 26, Daviess 69, Dearborn 15, Decatur 24, Dekalb 13, Delaware 20, Dubois 28, Elkhart 6, Fayette 6, Floyd 27, Fountain 9, Franklin 29, Fulton 5, Gibson 43, Grant 23, Greene 69, Hamilton 11, Hancock 16, Harrison 21, Hendricks 35, Henry 18, Howard 14, Huntington 43, Jasper 24, Jasper 7, Jay 5, Jefferson 3, Jennings 22, Johnson 18, Knox 72, Kosciusko 10, Lagrange 6, Lake 8, Laporte 7, Lawrence 43, Madison 47, Marion 52, Marshall 4, Martin 22, Miami 1, Monroe 3, Montgomery 23, Morgan 41, Newton 7, Noble 4, Ohio 3, Orange 13, Owen 29, Parke 56, Perry 31, Pike 19, Posey 37, Pulaski 11, Putnam 35, Randolph 18, Ripley 11, Rush 13, Scott 17, Shelby 19, Spencer 18, Starke 15, Steuben 3, St. Joseph 9, Sullivan 101, Switzerland 8, Tippecanoe 43, Tipton 21, Union 7, Vanderburgh 37, Vermillion 32, Vigo 449, Wabash 12, Warren 22, Warrick 24, Washington 28, Wayne 11, Wells 10, White 12, Whitley 9.

COURSES OF STUDY.

The courses of study as offered at present may be stated briefly as follows:

1. **TWELVE WEEKS' COURSE**, to prepare teachers for Class "A," the legal requirements of which are (1) graduation from the commissioned or certified high school, or equivalent scholarship, (2) not less than twelve weeks' work in a professional school for the training of teachers, and (3) a license to teach of not less than twelve months.

2. **TWENTY-FOUR WEEKS' COURSE**, to prepare teachers for Class "B," the legal requirements of which are (1) graduation from the commissioned or certified high school, or equivalent scholarship, (2) not less than twenty-four weeks' work in a professional school for the training of teachers, (3) one year's successful experience in teaching, and (4) a license to teach of not less than twenty-four months.

3. **TWO-YEAR COURSE**, to prepare teachers for district and town schools, the legal requirements of which class are (1) graduation from the commissioned high school, and (2) two years, or seventy-two weeks, in a professional school. Successful completion of this course entitles the student to a certificate which is accepted in lieu of a license to teach in the district or town schools of the State for three years without examination.

4. **THREE-YEAR COURSE**, to prepare teachers for Class "C," the legal requirements of which are (1) graduation from the commissioned or certified non-commissioned high school, or equivalent scholarship, (2) graduation from a professional school for the training of teachers in the course covering three years or one hundred eight weeks, (3) three years' successful experience in teaching, and (4) a three-year license or its equivalent. Completion of this course in the State Normal School and two years of successful experience entitle the student to a diploma which is a Life State License in Indiana.

5. **FOUR-YEAR COLLEGE OR ADVANCED COURSE**, to prepare teachers for high schools, academics and advanced position in school

work. The conditions of admissions to this course are those required by standard colleges of the Middle West, or graduation from the commissioned high school. Completion of this course entitles the student to the degree of Bachelor of Arts, and, after two years of successful experience, to a diploma which is a Life State License in Indiana.

6. COURSE FOR COLLEGE GRADUATES, a course of thirty-six weeks, open to graduates of standard colleges, and carrying with its completion and two years of successful experience the diploma which is a Life State License in Indiana.

7. THE OLD FOUR-YEAR COURSE, which required fifty credits for graduation. Students who enter upon this course may complete it by fulfilling the requirements at the time they entered or they may adjust themselves to the new courses and their conditions. High school graduates who entered the old four-year course were given fourteen credits. Of the *thirty-six* credits necessary for graduation, *fifteen* in common branches, *nine*, *seven* or *eight*, according to time of entrance, in professional subjects, and *one* in composition were required. The remaining subjects were elective. The fifteen credits required in common branches were distributed as follows: *Three* each in geography and grammar; *two* each in arithmetic, reading, history and physiology; and *one* in writing. Previous to the Fall Term of 1904, *nine* professional subjects were required; between the Fall Term of 1904 and the Summer Term of 1906, *seven* professional subjects were required; beginning with the Summer Term, 1906, *eight* professional subjects were required. With these facts in mind consultation of the subjects required in the new courses will readily reveal the changes necessary for adjustment to present conditions.

REQUIREMENTS OF COURSES OF STUDY.

1. 'TWELVE WEEKS' COURSE.

For Certificate to Class "A" four credits are required:

- (a) One subject chosen from the following: Psychology, Methods, History of Education, Observation, Child Study—one credit.
- (b) One common school subject—one credit.
- (c) One advanced subject—one credit.
- (d) One subject elected from common school or advanced subjects—one credit.

2. TWENTY-FOUR WEEKS' COURSE.

For Certificate to Class "B" eight credits are required:

(a) First term of twelve weeks, four subjects as stated above in the Twelve Weeks' Course—four credits.

(b) Second term of twelve weeks, four subjects chosen under the same regulations and from the same subjects as in the course for Class "A." with no duplication of work done in that course—four credits.

3. TWO-YEAR COURSE—SEVENTY-TWO WEEKS.

Twenty-five credits required for certificate which entitles the holder to teach in district and town schools for three years without examination.

Psychology—two credits.

History of Education—one credit.

Methods—one credit.

Practice—one credit.

Arithmetic—two credits.

Grammar—two credits.

Composition—one credit.

Reading—two credits.

Geography 3 and 4—two credits.

History, two credits in American History; or, two credits in European History; or, one credit each in American and European History—two credits.

Physiology—two credits.

Music—one credit.

Drawing—one credit.

Manual Training and Domestic Science—one credit.

Penmanship—one credit.

Physical Training, twenty-four weeks—one credit.

Elective—one credit.

4. THREE-YEAR COURSE—ONE HUNDRED EIGHT WEEKS.

Thirty-eight credits required for certificate which makes the holder eligible to Class "C," and after two years of successful experience entitles him to a diploma which is a Life State License in Indiana.

Psychology—three credits.

History of Education—two credits.

Methods—one credit.

Practice—two credits.

Arithmetic—two credits.

Grammar—two credits.

Composition—one credit.

History, two credits in American History; or, two credits in European History; or, one credit each in American and European History—two credits.

Physiology—two credits.

Reading—two credits.

Geography 3 and 4—two credits.

Nature Study—one credit.

Drawing—one credit.

Manual Training and Domestic Science—one credit.

Music—one credit.

Penmanship—one credit.

Physical Training, twenty-four weeks—one credit.

Elective—eleven credits.

5. FOUR-YEAR COLLEGE COURSE—ONE HUNDRED FORTY-FOUR WEEKS.

Thirty-eight credits in college work, in addition to entrance requirements, entitle the student to the degree of Bachelor of Arts, and to a certificate which after two years of successful experience becomes a Life State License in Indiana.

Professional subjects—nine credits.

Science—three credits.

Latin or German—five credits.

English Literature and Composition—two credits.

European or American History—two credits.

Physical Training—two credits.

Electives—fifteen credits.

Each student in this course must choose some one line of work for his major subject, in which he must make not fewer than nine credits before graduation. With the consent of the head of the department in which the major work is done, other work closely allied to the major work may be substituted for a part of it, not to exceed three terms in all. In choosing the elective subjects the student should consult the head of the department in which he is doing his major work. Of the professional work required for graduation one term of observation and practice shall be in connection with the major subject.

REQUIREMENTS FOR COLLEGE COURSE STUDENTS FOR CLASS "A" AND CLASS "B" CERTIFICATES.

For Class "A" certificate, three credits, two of which must be in strictly professional subjects.

For Class "B" certificates, six credits, four of which must be in strictly professional subjects with no duplication of work.

6. COURSE FOR COLLEGE GRADUATES—ONE YEAR—THIRTY-SIX
WEEKS.

Twelve credits (one year's work in residence) are necessary for graduation from this course. Eight professional credits are required as follows: Three in Psychology, two in Methods, two in Practice, and one in History of Education. The four remaining credits may be elected from other professional subjects or from academic subjects. Students completing this course are entitled to the certificate and after two years of successful experience to the diploma, which is a Life State License in Indiana.

Report of the Board of Official Visitors, 1910-1911.

(Extract from an act approved March 5, 1873.)

The State Board of Education shall appoint annually in the month of June, or at its first meeting thereafter, a committee of three, who shall constitute a Board of Visitors, and shall in a body or by one of their number visit said school once during each term and witness the exercises and otherwise inspect the condition of the school, and by the close of the Normal School year they shall make a report to the Board of Trustees. The members of said Board of Visitors shall be allowed five dollars for each day's service rendered, and also traveling expenses, to be paid out of the State treasury.

To the Board of Trustees of the Indiana State Normal School:

Gentlemen—The Board of Official Visitors appointed to inspect the Indiana State Normal School, at Terre Haute, spent May 9, 10 and 11 in making their investigation and desire to report as follows:

We feel that our visit was in every way agreeable and helpful to us, although it was clearly impossible in the short period of three days to become acquainted with all the details of a great educational institution like the Indiana State Normal School. So far as we were able, we visited the various departments of the school and observed the work done by them. Every opportunity was afforded us by the authorities to make our visit profitable, and the hospitality shown us by your president and that fine group of professors was greatly enjoyed and appreciated by us.

We were much impressed by the spirit of modern scholarship displayed by the instructors. The State of Indiana has reason to take pride in the attainments of your professors—the instruction given by men and women trained as these can hardly fail to be sound from the educational standpoint. We found, too, among them that kind of personality which means so much in the determining of the influence exerted upon the students, who come from all quarters of our State for instruction. Students so trained will surely go back to the schools of the State and guide aright the children, who are the greatest and most precious asset of Indiana.

The good order, discipline and general atmosphere of the school are admirable. It is evident that your students are attending school for serious purposes; they deport themselves as we have a right to expect of young ladies and gentlemen in a properly conducted educational community, a community that should in itself be as nearly ideal as possible.

The new library building is in every way admirable and reflects great credit upon the liberality which made it possible. It is a beautiful structure and seems perfectly adapted to the purpose of its construction. The most important thing, the library itself, seems adequate to the needs of the school and we hope that no mistaken spirit of economy will prevent its proper increase and the maintenance of its present high efficiency. The other buildings are substantial, and show by their cleanliness and good state of repair that your management is taking proper care of what has been entrusted to its keeping.

We realize that the State of Indiana has been generous in its treatment of the school, but at the same time it is a generosity that repays the State a hundredfold in the well-equipped teachers sent out by this famous Normal School to discipline the future citizens of Indiana. It must be maintained as a model school, where we can always find the best instruction, the best equipment, and the best methods for all the various departments now demanded by a complex educational system, such as ours has come to be. There can be no such thing as standing still in developing our State normal work.

The State Normal School enrolled this year over 2,400 students, and in the spring term 1,672 were in attendance. The housing of this great body of students is a big and exceedingly important problem. There should be sufficient dormitory facilities to meet the requirements of these students. A model dormitory, at least for young women, seems a great need. To thus bring together a large group of students under sound living conditions would have a most wholesome effect upon the school itself and would contribute toward perfecting the character of those who are to go out as our teachers. It could also be made a profitable enterprise for the institution.

You have fine science instructors and a good equipment, but the quarters for your science department are quite inadequate, so that a model science building is an imperative need. The same thing may be said in regard to the work in manual training. In these

days, we are demanding of our schools, and rightly too, that they furnish us high grade instruction in science, manual training and domestic science. We feel that you should also have a building for manual training and domestic science, and all the equipment necessary for these very important subjects. If you had such a building, the work in these departments could be coördinated with the other subjects in the grades and high school of the training school, and the practice students would see it in its relation from beginning to end. Perhaps one large building would suffice for science, manual training and domestic science.

We feel that the work of the training school is hampered by not having sufficient teaching force. There should be a supervisor of manual training in that department, directing the work through all the grades and the high school. As we see it, at present, there is no unity to the manual training course in the training school. We recommend the addition of a supervisor, and also another for music and drawing.

The administrative activity of an educational institution is of vital importance; its records should be perfectly kept and preserved in fireproof quarters. The room at present available for this purpose seems wholly inadequate, although your management is greatly to be praised for what it has accomplished under the circumstances.

We wish to call attention to one other matter. It means much to any community to have in its midst such an educational institution as the State Normal School. The city of Terre Haute should be quick to do anything reasonable that would promote the best interests of the school. While we were visiting the classes held in rooms along the street between the main building and the library, we noted the great disturbance caused by the noise of passing vehicles; and this is specially annoying in warm weather, when it is necessary to have the class-room windows open. Might it not be possible for the city to take steps that would minimize or entirely stop traffic along that particular street, thus establishing a much needed "zone of quiet?"

We realize that you have done a good work in administering so successfully the affairs of this, our great Normal School; we realize, too, that a growing institution like this has many needs. What we suggest is not by way of criticism. No doubt all these recommendations have already been brought to your notice by your able leader, the president of the school. We merely desire to

strengthen his hands by expressing our opinion in this report. We certainly hope that the State of Indiana will be even more liberal than it has been in the past in meeting the needs of the State Normal School.

Respectfully submitted,

THOMAS C. HOWE,

President of Butler College.

CHARLES E. TALKINGTON,

Supt. of Bartholomew County Schools.

F. S. MORGANTHALER,

Supt., Rockport, Indiana.

The foregoing report is respectfully submitted.

WM. W. PARSONS,

President of Faculty.

Report of Secretary of the Board of Trustees.

INDIANA STATE NORMAL SCHOOL,
TERRE HAUTE, IND., October 1, 1911.

Hon. William H. Armstrong, President:

Dear Sir—I herewith submit my report of the receipts and expenditures of the Indiana State Normal School for the fiscal year ending September 30, 1911:

GENERAL FUND.

Receipts.

Balance in treasury October 1, 1910.....	\$42,405 87
Received from Auditor of State, proceeds of tax.....	132,094 53
Received from Auditor of State, special appropriation	12,500 00
Received from interest on daily balances	1,020 64
Received from city of Terre Haute, civil, one-half repairs.....	1,578 65
Received tuition from nonresident students	492 00
Received from sale of old boiler	125 00
Received from premium on cancelled insurance	23 89
Received on account of overdraft returned	38 77
Received from rent of house	20 00
Received from outstanding order	4 50

Total\$190,303 85

Less reimbursement as follows:

City of Terre Haute on one-half repairs, \$1,578.65..... 1,578 65

Total\$188,725 20

Expenditures.

Advertising	\$730 18
Attorneys' fees	40 00
Athletics	459 07
Coal	3,395 78
Commencement	345 55
Employees	11,544 33
Electric current	14 04
Faculty	97,289 41
Freight and hauling	413 61
Furniture and fixtures	1,027 06
Gas	294 20
Departments	4,768 71

Improvements	1,133 33
Insurance	762 81
Laundry	199 95
Lectures	212 25
Library building	359 95
Dean of Women	18 80
Night watch service	248 80
Postage	763 20
Printing	1,812 58
Repairs to residence	48 30
Real estate	12,502 00
Repairs to buildings and grounds	830 04
Repairs to furniture and fixtures	124 90
Sundries	99 59
Supplies, boiler house	422 78
Supplies, grounds	987 93
Repairs, office	219 38
Repairs, training school	215 64
Traveling expenses	182 71
Telegram	50
Telephone	217 55
Trustees, services and expenses	1,390 42
<hr/>	
Total expenditures	\$143,075 35
Balance in treasury September 30, 1911	47,228 50
<hr/>	
Total	\$190,303 85

LIBRARY FUND.

Receipts.

Balance in treasury September 30, 1910	\$8,697 98
Received from library fees	6,158 00
Received from W. K. Stewart	357 15
Received from lost books	10 50
Received from G. Stechert	50
<hr/>	
Total receipts	\$15,224 13

Expenditures.

Books, periodicals and supplies	\$10,297 69
Young Men's Christian Association	100 00
Young Women's Christian Association	100 00
Athletic Association	100 00
<hr/>	
Total	\$10,597 69
Balance in treasury September 30, 1911	4,626 44
<hr/>	
Total	\$15,224 13

The funds of the institution are paid out only on the presentation of itemized bills, approved by the Board of Trustees, which are duly receipted and paid. These vouchers are then filed with the Auditor of State and duplicates of the same are preserved in the institution's fireproof vault.

The report of the Treasurer agrees with that of the Secretary in showing a balance on hand in the General Fund of \$47,228.50, and in the Library Fund \$4,626.44. Attention is called to the fact that the scholastic year does not correspond with the State's fiscal year. Only one-tenth of the school year is past, and the balance on hand at the end of the fiscal year, with what is received on the first of the following January, must carry the school through the remaining nine months of the academic year.

Respectfully submitted,

JOSHUA JUMP,
Secretary.

Treasurer's Report.

TERRE HAUTE, IND., October 1, 1911.

To Hon. William H. Armstrong, President:

The undersigned, Treasurer of the Board of Trustees of the Indiana State Normal School, submits the following report for the twelve months ending September 30, 1911:

GENERAL FUND.

Receipts.

Balance in treasury October 1, 1910	\$42,405 87
Received from State treasury, proceeds of tax	132,094 53
Received from other sources	15,803 45
Total	\$190,303 85

Expenditures.

Paid out on Secretary's orders	\$143,075 35
Balance in treasury September 30, 1911	47,228 50
Total	\$190,303 85

LIBRARY FUND.

Receipts.

Balance in treasury October 1, 1910	\$8,697 98
Received from students' library fees	6,158 00
Received from other sources	368 15
Total	\$15,224 13

Expenditures.

Paid out on Secretary's orders	\$10,597 69
Balance in treasury September 30, 1911	4,626 44
Total	\$15,224 13

Respectfully submitted,

W. R. McKEEN,
Treasurer.

SIXTY-THIRD ANNUAL REPORT

OF THE

Board of Trustees and Superintendent

OF THE

Central Indiana Hospital for Insane

AT

INDIANAPOLIS, INDIANA

FOR THE

FISCAL YEAR ENDING SEPTEMBER 30, 1911

TO THE GOVERNOR

INDIANAPOLIS :

WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING
1912

THE STATE OF INDIANA,

EXECUTIVE DEPARTMENT,

January 4, 1912.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,

INDIANAPOLIS, January 23, 1912.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,

Auditor of State.

JANUARY 25, 1912.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,

Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, January 26, 1912.

L. G. ELLINGHAM,

Secretary of State.

Received the within report and delivered to the printer, January 26, 1912.

ED D. DONNELL,

Clerk Printing Board.

OFFICERS OF THE INSTITUTION.

MEMBERS OF THE BOARD OF TRUSTEES.....	D. H. Davis, President.
	Adam Heimberger, Vice-President.
	Hugh. Th. Miller, Secretary.
	Walter S. Chambers, Treasurer.
SUPERINTENDENT	Geo. F. Edenharter, M. D.
ASSISTANT PHYSICIANS, DEPARTMENT FOR	
MEN	P. J. Watters, M. D.
	F. M. Wiles, M. D.
	Ord Evermann, M. D.
ASSISTANT PHYSICIANS, DEPARTMENT FOR	
WOMEN	Sarah Stockton, M. D.
	Edward J. Kempf, M. D.
CLINICAL PSYCHIATER	Max A. Bahr, M. D.
ASSISTANT PATHOLOGIST	Ernest D. Martin, M. D.
STEWARD	Simon P. Neidigh.
SECRETARY	Cornelius Mayer.
ASSISTANT SECRETARY	Erie O. Thompson.
RECORD CLERK	Evangeline M. Smith.
BOOKKEEPER	Wm. E. Cochran.
STOREKEEPER	Millard W. Ferguson.
PHARMACIST	James C. Jamison.
CHIEF ENGINEER	Edward E. Frost.
CHIEF CARPENTER	William F. Cobb.

Report of the Board of Trustees

REPORT OF THE BOARD OF TRUSTEES.

Hon. Thomas R. Marshall, Governor of Indiana:

Sir—As trustees of the Central Indiana Hospital for the Insane and in conformity to law, we hereby present our annual report for the fiscal year ending September 30, 1911.

With this report is submitted the annual report of the Superintendent, which describes the operations of the institution for the above period and also presents the statistical tables, together with the schedule of vouchers and a statement of the expenditures from the different funds.

PROPERTY.

The property of this institution which is in charge of this Board of Trustees was valued at the end of the fiscal year as follows:

Real Estate.....	\$160,000
Buildings	1,394,250
Improvements	54,000
Personal property	395,592
<hr/>	
Total	\$2,003,842

NUMBER OF PATIENTS.

The following table shows the number of patients during the year just closed and the two previous years:

	1909.	1910.	1911.
Total number at beginning of year.....	2,009	1,995	1,529
Number received during year.....	352	397	405
Number discharged during year.....	222	699	230
Number died during year.....	144	164	130
Total number treated during year.....	2,361	2,392	1,934
Number on rolls at close of year.....	1,995	1,529	1,574
Average daily number actually present.....	1,842.78	1,788.67	1,423.021

COUNTIES OF THE DISTRICT.

Under order of the Governor, Vigo, Morgan, Clay and Owen counties were detached from this district and Grant, Madison and White counties were added to it.

We have arranged a table which shows the present counties, the population and the number of patients to which they will be entitled.

The figures are based upon the census report for 1910 and the future normal capacity of the institution, 1,600. The unit of calculation is 504.

<i>County.</i>	<i>Population.</i>	<i>Quota.</i>
Benton	12,688	25+
Boone	24,673	48+
Carroll	17,970	35+
Clinton	26,674	52+
Fountain	20,439	40+
Grant	51,426	102-
Hamilton	27,026	53+
Hancock	19,030	37+
Hendricks	20,840	41+
Howard	33,177	65+
Johnson	20,394	40-
Madison	65,224	129+
Marion	263,661	523+
Montgomery	29,296	58+
Parke	22,214	44+
Putnam	20,520	40-
Shelby	26,802	53+
Tippecanoe	40,063	79+
Tipton	17,459	34+
Vermillion	18,865	37+
Warren	10,899	21+
White	17,602	34+
Total	806,942	1,590+

At the close of the year we had an enrollment of 1,574 patients and an actual number of 1,433 present. This being the only time in many years when the institution was relieved from the baneful influence of overcrowding.

APPROPRIATIONS AND EXPENDITURES.

The regular appropriations have as usual maintained the institution.

The sums appropriated, with the expenditure from each and the balances returned to the State treasury, are given in the appended statement (for fiscal year 1910-1911):

Regular.

Maintenance	\$325,000 00
Amount expended	310,903 09
<hr/>	
Balance reverting to treasury.....	\$14,096 91

Repair.

Repair	\$25,000 00
Amount expended	23,457 97
<hr/>	
Balance reverting to treasury.....	\$1,542 03

Clothing.

Clothing	\$15,000 00
Amount expended	13,583 20
<hr/>	
Balance reverting to treasury.....	\$1,416 80

Specific.

Upholsterers' department	\$3,500 00
Amount expended	3,493 03
<hr/>	
Balance reverting to treasury.....	\$6 97
Vegetable house	\$1,500 00
No expenditures
<hr/>	
Balance reverting to treasury.....	\$1,500 00

This statement shows that we returned to the treasury amounts from the various funds as follows:

Maintenance	\$14,096 91
Repair	1,542 03
Clothing	1,416 80
Upholsterers' department	6 97
Vegetable house	1,500 00
<hr/>	
Total	\$18,562 71

The appropriation for the vegetable house was found to be entirely inadequate and therefore was not used.

All of the balances above referred to reverted to the State treasury September 30, 1911.

PER CAPITA COST OF MAINTENANCE.

The per capita cost for this purpose for the fiscal year was \$218.48.

The total amount expended from the maintenance fund was \$310,903.09 and the above calculation is made upon the daily average number of patients, which was 1,423+.

We have many times referred to the fact that the cost of maintaining a supervision over the patients furloughed and their property remaining in the hospital, is not included in these calculations. We believe that the per capita should be calculated upon the basis of enrollment.

As outlined in last year's report our fuel bill would be increased, the figures now show that for the fiscal year of 1909-1910 the amount paid therefor was \$30,699.70, while for the fiscal year of 1910-1911 the amount expended was \$38,282.83, an increase of \$7,583.13. The price for the last year was \$1.77 per ton as against \$1.43 per ton the preceding year.

The amount expended for subsistence during the last fiscal year was \$105,407 and the amount for the preceding year was \$123,821.11, a reduction of \$18,414.11 for the past year.

It should be remembered that in an institution constructed or arranged as this is that a reduction in the number of patients does not materially lessen the expense; about the only item where a cut can be made is in the food supply, the number of employes, the amount of fuel, light, salaries and wages remaining the same.

TABLE OF COMPARISON.

A STATEMENT OF SUNDRY ARTICLES OF SUBSISTENCE, SHOWING AMOUNT USED, COST AND PER CENT. OF INCREASE OR DECREASE DURING THE FISCAL YEARS ENDING SEPTEMBER 30, 1910, AND SEPTEMBER 30, 1911.

ARTICLE.	1908-1910.		Unit Cost.		1910-1911.		Unit Cost.		Per Cent. of	
	Amount.	Cost.			Amount.	Cost.			Increase.	Decrease.
Beef.....	319,991 pounds.....	\$27,355 14	8 549	280,186 pounds.....	\$23,637 16	8 4362	1 3			
Pork loins.....	54,080 pounds.....	7,286 25	11 624	47,901 pounds.....	5,723 67	11 95	2 7			
Veal.....	902½ pounds.....	135 65	15 03	1,333 pounds.....	195 03	14 63	2 6			
Ham.....	66,941 pounds.....	10,376 29	15 5	62,989 pounds.....	8,772 79	13 927	10 14			
Lard.....	35,001 pounds.....	4,704 25	13 44	33,985 pounds.....	3,543 43	10 426	22 4			
Bacon.....	1,004 pounds.....	242 02	24 10	1,190 pounds.....	269 54	22 65	6			
Chickens.....	2,617 pounds.....	506 73	19 36	1,676 pounds.....	305 42	18 22	5 8			
Turkeys.....	6,533½ pounds.....	1,468 80	22 46	5,567½ pounds.....	1,215 16	21 826	2 8			
Butterine.....	72,762 pounds.....	9,564 87	13 14	58,400 pounds.....	6,832 64	11 70	10 9			
Eggs.....	18,870 dozen.....	4,230 69	22 42	19,410 dozen.....	3,684 18	18 99	15 3			
Oysters.....	1,369 gallons.....	1,421 66	1 038	977 gallons.....	1,093 60	1 117	7			
Milk.....	63,765 gallons.....	9,562 00	14 995	63,870 gallons.....	9,479 25	14 841	1			
Potatoes.....	10,922½ bushels.....	5,146 65	47 12	9,190 bushels.....	6,826 46	74 843	37			
Beans.....	586½ bushels.....	1,358 84	2 315	515 bushels.....	1,173 32	2 2788	23 16			
Dried apples.....	12,000 pounds.....	1,092 50	9 091	8,008 pounds.....	948 34	11 8434	21 47			
Dried peaches.....	30,000 pounds.....	2,017 50	6 725	1,855 00	1,855 00	18 5636				
Meal.....	17,700 pounds.....	305 14	1 724	15,600 pounds.....	204 91	1 313	23 84			
Hominy.....	13,700 pounds.....	224 40	1 638	8,300 pounds.....	82 95	1 00	38 95			
Rice.....	19,400 pounds.....	1,020 00	5 25	17,400 pounds.....	563 00	3 24	38 28			
Crackers.....	41,547½ pounds.....	2,473 71	5 95	33,283 pounds.....	1,710 43	5 14	13 11			
Cheese.....	14,550 pounds.....	2,317 46	15 927	13,447 pounds.....	2,068 30	15 53	2 49			
Flour.....	2,553 barrels.....	13,187 13	5 165	2,003 barrels.....	8,390 21	4 1888	18 68			
Onion.....	65 barrels.....	354 30	5 45	57 barrels.....	215 73	3 785	30 55			
Canned peaches.....	110 dozen.....	175 50	1 595	160 dozen.....	286 00	1 7875	10 74			
Canned corn.....	750 dozen.....	573 75	7 65	600 dozen.....	500 00	83½	8 19			
Canned tomatoes.....	150 dozen.....	118 75	7 91	110 dozen.....	102 50	9 03	11 29			
Coffee.....	37,175 pounds.....	3,754 59	10 996	37,382½ pounds.....	5,316 43	14 22	22 67			
Tea.....	5,061 pounds.....	1,275 45	2 52	4,367½ pounds.....	1,062 36	24 32	3 49			
Sugar.....	126,715 pounds.....	6,855 60	5 41	94,516 pounds.....	4,982 22	5 2713	2 56			
Syrup.....	2,031½ gallons.....	499 14	24 57	1,556 gallons.....	322 04	20 7	15 75			
Lemons.....	48 boxes.....	248 60	5 18	46 boxes.....	208 60	4 53½	12 55			

IMPROVEMENTS AND REPAIRS.

Specific mention of these are made in the report of the Superintendent to the Board of Trustees.

WASTE MATERIAL.

This was as usual disposed of largely by asking competitive bids—awarding the same to the highest bidder—and depositing the proceeds from the sale thereof each month with the State Treasurer. It amounted for the fiscal year to \$2,709.76.

CHAPEL AND AMUSEMENT HALL.

When we contemplate the relief from the monotonous existence of institutional life which will be afforded (by the erection and use of this building) not only to our patients, but also, to our employes, we can not refrain from again giving voice to our thanks to you and all the members of the Legislature who acquiesced in the appropriation for the above building.

The Board of Trustees at a meeting held on May 16, 1911, upon the suggestion of Superintendent Edenharter adopted the following resolution:

WHEREAS, The General Assembly of nineteen hundred and eleven appropriated the sum of fifty thousand dollars for the building of a chapel and amusement hall; and

WHEREAS, Cornelius Mayer, the secretary of this institution, has for the past eighteen years arranged the program for and personally conducted all the entertainments given; therefore, be it

Resolved, That as a slight token of our esteem and a recognition of his arduous, faithful and long continued services in behalf of our patients, that this building shall, when built, be dedicated and named Cornelius Mayer Hall, and a stone tablet, so engraved, shall be placed on the front thereof.

As an additional reason for our action in this matter, we desire to express our appreciation and record our sincere commendation for his great work in connection with the grounds of this institution.

It is apparent to the most casual observer that much thought and skillful manipulation were required to produce such beautiful nature pictures.

We fully believe that we are warranted in saying that the beauty of our park is unsurpassed by that of any connected with a public institution.

This testimonial is intended to convey to him and to acknowledge publicly that we know of his untiring devotion and loyalty to all the interests of this hospital, and we therefore cheerfully adopt the suggestion of the superintendent to take the above proceeding and in such manner at this time.

It is ordered that a copy of this testimonial be spread upon the record of the Board of Trustees and a suitable copy, with our signatures and that of the superintendent, be presented to the secretary.

PATHOLOGICAL DEPARTMENT.

It is extremely gratifying to this board to read the many letters of commendation received from physicians and others regarding the reports issued from this department concerning its scientific work.

We submit copies of several letters, from well-known men, prominently connected with our colleges:

LAFAYETTE, IND., May 10, 1911.

Dr. Geo. F. Edenharter, Central Hospital for the Insane, Indianapolis, Ind.:

Dear Sir—I beg to acknowledge with thanks receipt of your report, part three, representing the work of the Clinical and Pathological Department. I will examine it with a good deal of care and will make any suggestions to you that may occur to me in the direction of increasing its value, if such a thing is possible.

That it has value is evidenced by the fact that I had scarcely opened it before our Dr. Terry, who is in charge of the work in anatomy and pathology, seized hold of it for detailed facts relative to certain matters under investigation in our laboratory.

I wish, if you have the volume to spare, that you would send a copy of the report to O. P. Terry, M. D., who is our Professor of Anatomy and Physiology. Very sincerely yours,

STANLEY COULTER.

CRAWFORDSVILLE, IND., May 17, 1911.

Dr. Geo. F. Edenharter, Indianapolis, Ind.:

My Dear Doctor Edenharter—I am very grateful to you for the copies of the reprints of your Pathological Department just received, and thank you very much for remembering me in this connection. I have looked over the reports, and I wish to congratulate you on the splendid work your laboratory is doing toward solving some of the scientific problems of such vital interest to all who are called upon to deal with the insane. I certainly hope that every possible help will be given your laboratory, so that its work may be increasingly useful to the people of the State and the country at large. I wish very much that you would come over to make the college a visit. Most cordially,

M. B. THOMAS.

GREENCASTLE, IND., November 4, 1911.

Dr. Geo. F. Edenharter, Suprcintendent Central Hospital for the Insane, Indianapolis, Ind.:

My Dear Dr. Edenharter—I am glad to acknowledge receipt of a copy of the report of the Pathological Department of the Central Indiana Hospital for the Insane. I have read with much pleasure and profit the sum-

maries of the work conducted by Dr. Bahr and Dr. Jackson. My ability to do the broadest and most effective work in the Department of Psychology at DePauw University is in a peculiar way dependent upon our ability to keep in touch with such clinics as those conducted by Dr. Bahr, and I wish to take this occasion of stating both my personal appreciation and that of DePauw University of the courtesies always extended to us by the officers and physicians of your institution. I trust that the way may be open for continued development, particularly in the work in clinical psychiatry. Such investigations seem to me to be invaluable for the progress of that science upon which the most successful treatment of the insane depends. We are anticipating another visit to your institution with our advanced students of psychology in the near future. Yours faithfully,

R. B. VON KLEINSMID,
Professor Psychology and Education.

DEPARTMENT OF PHILOSOPHY, INDIANA UNIVERSITY,
BLOOMINGTON, IND., August 22, 1911.

*Dr. Geo. F. Edenharter, Superintendent Central Hospital for the Insane,
Indianapolis, Ind.:*

My Dear Doctor—The equipment and service of the Pathological Department of the Central Hospital are indispensable for my work in mental pathology.

For more than ten years I have conducted courses in mental pathology at Indiana University. The work is required of all pre-medical students and is elected by many other students (most of whom are to remain citizens of Indiana). We have each year held clinics at the Central Hospital and, thanks to you and your staff, they have been highly satisfactory.

I wish also to emphasize the value of research, the results of which are published in the annual report of the Pathological Department of the hospital. They not only lead to the discovery of better modes of treatment of the insane, but they constitute the only method whereby the appalling prevalence of insanity in our State may be reduced.

The late Professor William James, our most distinguished student of abnormal mental life, declared that the endowment of research in insanity would, in his opinion, accomplish more for social welfare than a similar large expenditure otherwise spent.

I share the view that much insanity is preventable, and I therefore hope that your larger plans for the Pathological Department may be carried forward.

Thanking you, Dr. Max Bahr, and the general staff of the hospital for the fine spirit of co-operation and helpfulness, I remain,

Very cordially yours,

E. H. LINDLEY.

Professor of Philosophy and Psychology, Indiana University.

These letters clearly indicate a recognition of the value of our effort.

We also submit the comment of the Johns Hopkins Hospital Bulletin:

Report from the Pathological Department, Central Indiana Hospital for Insane. Vol. 2, 1906-07, 1907-08; Vol. 3, 1908-1909. (Indianapolis: Wm. B. Burford, Contractor for State Printing and Binding.)

One of the best evidences of the advance in medical education and improvement in hospitals of all sorts is the recognized value of the pathologist to all institutions treating the sick; and it is a noteworthy fact that the insane hospitals throughout the country are now appointing pathologists on their staffs, and publishing annual reports from the pathological and clinicopathological departments. Every endeavor of this nature is worthy of commendation and imitation; and the publication of the above reports will help all the physicians in Indiana and elsewhere who are awake and eager to seize the opportunities for instruction that are afforded them. They may not have many readers, but capable young physicians will be more attracted to look for situations in the State hospitals if they know their work is to be supported by pathological investigations; and the present residents will be kept up to a higher level of work. It is only the dullest interne—and he should not have the position—who is not interested when he is able to secure an autopsy on a patient who has been under his observation. In addition to this the accumulating value of pathological reports on autopsies among the insane is very great, even when the findings may be, to use the common but very poor expression, "negative." These two volumes contain much of interest to alienists and physicians in hospitals for the insane, both on the clinical and pathological aspects of the work in the Central Indiana Hospital, and we are glad to note that the third volume is twice as large as the second, showing how well the staff has made use of its material. We hope that Dr. Edenharter, the Superintendent, will be able to continue to secure the needed aid from the State Legislature to pursue the work already so well begun.

This view from such an authoritative source, confirms the wisdom of our Superintendent's policies, and encourages us to continue with greater hope and energy the development of the clinical, pathological and allied work of the medical department of this institution.

We have extended the educational facilities of this department to the members of the medical profession and to the students of our colleges, and given them every opportunity to familiarize themselves with the underlying principles of psychiatry.

We believe that an early recognition of many of these maladies, with appropriate treatment therefor, will in many cases prevent the necessity of committing them to this or an institution of like character.

We have here a center for teaching and scientific investigation, where physicians and students may receive instruction, therapeuti-

cal, clinical and pathological, which will be of the greatest service to them (and to the community) in practice.

Our endeavor is to support the superintendent in his efforts to provide a teaching hospital, for the education of medical men in the science of mental and nervous diseases, so that eventually a condition will be created in Indiana that will provide early and competent medical service for all cases requiring the attention of an alienist or a physician who has acquired some special knowledge of psychiatry.

The class of the Indiana University School of Medicine attends the lectures which are given every Tuesday afternoon; the classes in psychology from this school and other colleges on dates by special arrangement.

All lectures are free to practitioners and students of medicine.

DEPARTMENT FOR MEN.

We desire to call special attention to that part of the Superintendent's report which relates to the physical condition of this building and indorse the language used by him when he writes that:

The structure and arrangement of this building is of such a character as to invite calamity rather than to repel it.

It should be demolished in its entirety, but until this is done the State should provide every facility to lessen the risk and to protect the lives of our unfortunate inmates.

We can not too strongly condemn this building. It is a source of constant dread and the keenest anxiety to every one who is in the least degree charged with the responsibility of management.

It is an insurmountable monument of menace, not only to the safety of those within its walls, but also to the peace of mind of all connected with the institution.

The State will not have done its full duty, either to her citizens who have been bereft of reason and committed to this department, their relatives and friends, or to herself, until she orders it razed to the ground, numbering it among those things which have been useful, but which time has decreed as no longer able to fulfill its mission as such mission is understood by the humanity of today.

We also agree with him when he says that:

We believe that it would be good policy for the State to erect upon a plot of ground near our east drive a building for fire department purposes. The State should erect the building, heat and light the same and then tender it to the city for use for fire purposes. In this way the city would equip it with apparatus and the institution would have an organized and

efficient fire company on the grounds. When you consider that we have practically two thousand lives to care for here, and in addition thereto upward of two million dollars' worth of property, it is certainly a proposition worthy of consideration.

Contracts for building the stairways, authorized by the Legislature, have been awarded, and at this writing the work is nearing completion.

As in previous reports, we take pleasure in testifying to the thorough and faithful service of our Superintendent, Dr. Geo. F. Edenharter. His work of the past year has been characterized by the same tact, sympathy, discrimination and versatility that have so long distinguished him as an administrative officer.

Respectfully submitted,

D. H. DAVIS, President,
 ADAM HEIMBERGER, Vice-President,
 WALTER S. CHAMBERS, Treasurer,
 HUGH TH. MILLER, Secretary,

Board of Trustees.

September 30, 1911.

Report of the Superintendent

REPORT OF THE SUPERINTENDENT.

INDIANAPOLIS, IND., September 30, 1911.

To the Honorable Board of Trustees:

Gentlemen—I herewith submit to you my report for the fiscal year ending September 30, 1911. As an introduction to the same permit me to call your attention to some figures taken from the appended statistical tables, to wit:

At the beginning of the year there were enrolled 1,529 patients—667 men and 862 women. At the close of the year there remained 1,574 patients—680 men and 894 women.

During the fiscal year we received 405 patients, 231 men and 174 women. During the same period we discharged 230 patients—127 men and 103 women; of this number 54 men and 40 women were discharged as recovered; 62 men and 59 women as improved; and 11 men and 4 women as unimproved. One hundred and thirty patients—91 men and 39 women—died.

The whole number of patients under treatment during the year was 1,934—898 men and 1,036 women. The daily average number of patients actually present (not counting those absent on furlough) was 1,423.021—621.706 men and 801.315 women.

The percentage of recoveries of the whole number of patients under treatment is 4.937; the per cent. of recoveries to the number admitted during the year is 23.188; the percentage of death is 6.948.

During the summer months a redistricting of the counties was arranged by the Governor, according to which the counties of Clay, Morgan, Owen and Vigo were taken from the Central to the Southeastern district, while White County was added to the Central district from the Northern and the counties of Grant and Madison from the Eastern district. In compliance therewith new patients were received, but the transfer of those already under treatment in the several hospitals was deferred until October of the next fiscal year.

ESCAPES.

During the year thirty-two patients escaped from the institution—twelve were returned.

DEATHS.

One hundred and thirty patients died at the ages given below: Under 20 years of age, 1; 20 to 30 years, 14; 30 to 40 years, 38; 40 to 50 years, 23; 50 to 60 years, 26; 60 to 70 years, 16; over 70 years, 12.

CASUALTIES.

We report two suicides during the year.

PATHOLOGICAL DEPARTMENT.

The work in this department is progressing, but as the outline of the work is printed in another form, it is now omitted from our annual report.

NEEDS.

As related in former reports and in the statements to the Legislative Committee this institution is in need of the following buildings and improvements and efforts should be continued to secure them in order to complete them:

DETENTION DEPARTMENT.

For many years we have called attention to the importance of having at this institution a detention department for the reception of acute cases, where each individual could receive the closest clinical attention and study, and finally, if necessary, be referred to the proper ward in the institution for continued observation and treatment.

TUBERCULAR DEPARTMENT.

As every effort should be made to prevent the spread of tuberculosis, the State should provide separate quarters for those inmates already afflicted, in order to give them the benefit of specially constructed buildings and also to protect the interests of the other patients, the latter being of equal or even greater importance.

BUILDINGS FOR CONVALESCENTS.

In an institution of this character, built upon the present lines, it is essential that those patients who become convalescent should have a building removed from close contact therewith in order that every untoward influence may be removed. Such a building here would be of the greatest practical utility.

BUILDINGS FOR THE UNTIMID.

We should have separate buildings for the demented and filthy patients, constructed so that a good sanitary condition could be maintained.

BUILDINGS FOR CONTAGIOUS DISEASES.

The inmates of our institution in times of an epidemic of contagious disease are subjected to great danger, and to avert this we should have buildings for the treatment of these diseases.

PAVILIONS.

We also need buildings in the groves where the patients are taken for outdoor exercise, to protect them from inclement weather.

STOREROOM.

The building now used as a storeroom is entirely inadequate for our purpose. A new building amply sufficient for our needs should be provided.

FIRE DEPARTMENT BUILDING.

We believe that it would be good policy for the State to erect upon a plot of ground near our east drive a building to be used for fire department purposes. The State should erect the building, heat and light the same and then tender it to the city for use for fire purposes. In this way the city would equip it with apparatus and the institution would have an organized and efficient fire company on the grounds. When you consider that we have practically two thousand lives to care for here and in addition thereto upward of two million dollars worth of property it is certainly a proposition worthy of consideration.

HOSPITAL ADDITIONS.

Some day it will be necessary to construct the two additional wings to the new hospital. They would even now be of the greatest service to the institution. These buildings would provide room for the hydro-therapeutic apparatus.

COAL SHED.

We constantly feel the great need of a coal shed at the west side of the boiler house, not only for the storage of coal, but for the protection of the men who are engaged in handling the material. This building to be of the best service should be built of steel and concrete.

NATATORIUM AND BATH HOUSE.

We should have two buildings for this purpose, one at each department, fully equipped to answer every need.

HEATING APPARATUS.

The entire heating apparatus at both of the main departments should be remodeled. The condition of affairs is such that it would be wisdom and economy upon the part of the State to correct it.

ELECTRIC WIRING.

The entire electric wiring of the two main departments should be replaced by a system based upon modern and approved methods. The present system was installed in 1890 and is a source of danger which constantly menaces the safety of the institution.

IRON FENCE.

The institution needs a new fence around the south and east part of the ground. It should be of iron and of the same pattern as at the Washington street entrance.

TOILET AND BATH ROOMS.

These rooms should be remodeled at both buildings. There is the greatest need for this improvement. Fixtures of the best sanitary pattern should be installed.

DEPARTMENT FOR MEN.

Our report of 1894 contains the following language:

Department for Men.—The condition of affairs at this department is in many respects deplorable. The major portion of it was erected many years ago, when our State was practically in her infancy, and the necessity for such a hospital as is now demanded not recognized. Each succeeding administration has faithfully attempted to eradicate the evils of misconstruction and the unfailing effects of "natural wear and tear," but, hampered by the failure of the Legislature to grasp the necessity for a sufficient appropriation and the immense demand for necessities upon their resources in other directions, their efforts have been futile. Today it is simply a huge monument of patchwork and has nothing to commend it except the fact that it is doing its best to subserve its purpose. It can not in the least meet the demands of a progressive age, either in its construction or appointments. On the contrary, there are many things that should lead to its condemnation. Radical measures of repairs will be required. We recognize that this is the best that can be done under the circumstances.

Since this was written the repairs have been numerous, but they have not been of a sufficiently radical character (except the new floors) to effect much improvement either in the actual condition or as to appearance.

Besides, there is the constant additional deterioration to be reckoned with. Every regard for the elements of safety and sanitation appeal to us to make this plea for relief from these conditions.

Our report of 1910 contains the following:

The structure and arrangement of this building is of such a character as to invite calamity rather than repel it.

It should be demolished in its entirety, but until this is done the State should provide every facility to lessen the risk and to protect the lives of our unfortunate inmates.

We can not too strongly condemn this building. It is a source of constant dread and the keenest anxiety to every one who is in the least degree charged with the responsibility of management.

It is an unsurmountable monument of menace, not only to the safety of those within its walls, but also to the peace of mind of all connected with the institution.

The State will not have done its full duty, either to her citizens who have been bereft of reason and committed to this department, their relatives and friends, or to herself, until she orders it razed to the ground, numbering it among those things which have been useful, but which time has decreed as no longer able to fulfill its mission as such mission is understood by the humanity of today.

Provision should be made to replace the need of this building by erecting detached pavilions to take its place and then demolish it; or, better still, provide an entirely new institution somewhere and remove thereto half of our population—but in any event get rid of the old building.

WATER SUPPLY.

Steps should soon be taken to provide an increased water supply.

IMPROVEMENTS AND REPAIRS.

Following the custom in vogue from year to year we mention some of the improvements and repairs. The list of items under this heading could be carried to an extreme length; we insert only the more important ones. The invoices will show the extent and cost of the same.

Papering.—Employees' dormitories (rear center) Department for Women. Reception rooms, Department for Women.

Painting.—The wood, tin and iron work of all outside buildings. Operating room and kitchen at the "sick hospital." Attendants' rooms, Department for Women. All lawn seats, swings and vases.

Engineers Department.—New radiation in the chapel. New brine pump and new evaporating coils at the cold storage plant. Three steam pumps repaired.

Wells.—Two new wells were drilled and all of the old ones repaired.

Electrolyzer.—One was purchased and installed at the laundry.

Swings.—Two dozen large sized double swings were purchased for the grove.

Refrigerator.—One large refrigerator was purchased for the officers' kitchen at the womans building.

Cement Work.—Basement, foundations and lakes were repaired.

Oak Floors.—Old floors on Q ward and the dormitories and halls over storeroom were replaced with new ones.

Iron Fence.—A new iron fence was placed in the rear of grounds.

Metal and Slate Roofs.—All metal and slate roofs were repaired.

Upholsterer's Department.—A new brick building was erected for this purpose.

Electric Lighting System.—A new system for lighting the grounds was installed.

Iron Beds.—Two hundred iron beds were purchased.

Ranges.—All ranges in kitchens were repaired.

Bakery.—The oven at this department was thoroughly overhauled.

EMPLOYEES.

I am not unmindful of the fact that the success of an institution depends upon the work and loyalty of the individual employe; therefore, it is with a sense of duty that I commend the

officers and employes of the hospital for the faithful manner in which they have rendered their services, and I willingly share with them any credit that may be given for the work of a successful year.

TRUSTEES.

In conclusion I wish to express to each and every member of the board my profound gratitude for their assistance and encouragement tendered me during the past year.

The improvement manifest in all of the departments of the institution is largely due not only to your approval of measures submitted for your consideration, but also to your active and personal interest in its affairs.

I trust that the spirit of harmony will continue to prevail, and that I shall merit your approval in all that concerns the welfare of the institution and its unfortunate charges.

Very respectfully submitted,

GEO. F. EDENHARTER, M. D.,
Superintendent.

September 30, 1911.

Statistical Tables

MOVEMENT OF POPULATION FOR THE FISCAL YEAR ENDING SEPTEMBER
30, 1911.

RESULTS.	Men.	Women.	Total.
Number of patients at beginning of year.....	667	862	1,529
Admitted during the year.....	231	174	405
Whole number under treatment.....	898	1,036	1,934
Discharged as recovered.....	54	40	94
Discharged as improved.....	62	59	121
Discharged as unimproved.....	11	4	15
Died.....	91	39	130
Remaining at the close of the year.....	680	894	1,574
Percentage of recovered of whole number under treatment.....	6.013	3.861	4.937
Per cent. of recovered to number admitted.....	23.376	23	23.188
Per cent. of died of whole number under treatment.....	10.134	3.763	6.948
Daily average number actually present.....	621.706	801.315	1,423.021

MOVEMENT OF POPULATION BY MONTHS FOR THE YEAR 1910-1911.

MONTH.	Admitted.		Discharged.						Died.	
			Recovered.		Improved.		Unimproved.			
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
October, 1910.....	25	10	2	9	2	22	1	11	2
November, 1910.....	23	12	8	9	3	1	13	5
December, 1910.....	16	14	5	1	3	9	2	1	10	2
January, 1911.....	18	14	7	4	1
February, 1911.....	15	12	1	3	3	10	3
March, 1911.....	26	20	13	12	1	2	6	2
April, 1911.....	12	17	2	2	1	1	8	4
May, 1911.....	16	21	4	3	4	4	6
June, 1911.....	12	9	3	2	1	1	1	6	3
July, 1911.....	24	22	10	3	17	2	9	6
August, 1911.....	20	15	2	8	3	19	2	5	4
September, 1911.....	24	8	4	9	3	1	1	1	5	1
Total.....	231	174	54	40	62	59	11	4	91	39

STATISTICS OF PATIENTS ADMITTED, OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

Civil Condition.

CONDITION.	Under 20 Years.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		Over 70.		Unknown.	
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
Single.....	12	2	37	23	25	14	18	7	8	12	3	3	1
Married.....	7	21	24	31	24	26	23	6	16	8	12	1
Widowed.....	1	3	5	4	2	5	5	3	3
Divorced.....	2	1	3	2	1	1	2
Total.....	12	2	44	44	52	49	50	39	32	21	26	16	15	5

Education.

	Under 20 Years.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		Over 70.		Unknown.	
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
Collegiate.....	3	1	4	6	2	2	1	3	1
Reads and writes.....	12	2	35	40	41	42	38	35	29	20	19	12	14	4
Reads.....	1	1	1	1
None.....	6	2	5	9	1	3	4	1	1	1
Unknown.....	1	2	1	1
Total.....	12	2	44	44	52	49	50	39	32	21	26	16	15	5

Color.

	Under 20 Years.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		Over 70.		Unknown.	
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
White.....	12	2	36	36	49	48	49	39	30	20	25	15	15	5
Colored.....	8	8	3	1	2	1	1
Total.....	12	2	44	44	52	48	50	39	32	21	26	16	15	5

Nativity of Those Admitted During the Year.

STATE or COUNTRY.	Under 20.				20 to 30.				30 to 40.				40 to 50.				50 to 60.				60 to 70.				Over 70.				Unknown.				Total.	
	Male.		Fem.		Male.		Fem.		Male.		Fem.		Male.		Fem.		Male.		Fem.		Male.		Fem.		Male.		Fem.		Male.		Fem.			
Indiana.....	9	1		31	23		29	34		32	28		20	9		12	5		2	1										135	101			
Alabama.....				1																											1			
Delaware.....																															7	11		
Illinois.....				1	5		3	4		3	2																				1	2		
Iowa.....					1																										1			
Kansas.....					1																										2			
Kentucky.....				3	7		4	1		1	1																				9	12		
Maine.....																															1			
Massachusetts.....				1																											1			
Michigan.....																															1			
Missouri.....																															1			
Maryland.....																															2			
Minnesota.....																															1			
Mississippi.....																															1			
Montana.....																															1			
New England.....																															1			
New Jersey.....																															1			
New York.....																															1			
New Mexico.....																															1			
North Carolina.....																															2			
Ohio.....				1	1		1	1		2	1		2	2		1	2		1	1											2	7		
Oregon.....																															3			
Pennsylvania.....																															2	3		
Tennessee.....																															2			
Texas.....																															2	1		
Virginia.....																															1			
FOREIGN COUNTRIES.																																		
Austria.....							2																								2			
Canada.....																															1			
England.....																															1			
Germany.....																															7			
France.....																															1			
Finland.....																															1			
Ireland.....																															4			
Italy.....																															1			
Russia.....																															1			
Sweden.....																															1			
Switzerland.....																															1			
Europe.....																															2			
Unknown.....	2			3	3		3	2		6	6		3	6		2	3		1	1											20	21		
Total.....	12	2		44	44		52	49		50	39		32	21		26	16		15	5										231	176			

STATISTICS OF PATIENTS ADMITTED FROM OCTOBER 1, 1910, TO SEPTEMBER 30, 1911—Continued.

Occupation.	Age.											
	Under 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.	
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
Agent.....												
Artist.....												
Barber.....					1		1		1			
Bartender.....			1		1		2		1			
Brickmaker.....							1				1	
Blacksmith.....							1					
Bookkeeper.....					2		1					
Carpenter.....			1				1				1	
Cementworker.....					1							
Checkman.....			1		1		3		1			
Clerk.....	1		1									
Cleaner.....			1									
Conductor.....			1									
Cook.....			1				1		1			
Contractor.....							1		1			
Coppersmith.....												
Dairyman.....			1									
Decorator.....							1				1	
Domestic.....					3		1		2			
Dressmaker.....			5				1				1	
Electrician.....							1		1			
Engineer.....			1		1		1		1			
Farmer.....	1		8		2		8		3		5	
Fileworker.....			1		1							
Glassworker.....					1		1					
Hotelkeeper.....												
Housekeeper.....			3		5		11		1		2	
Housewife.....			15		24		14		9		5	
Housework.....			5		1		1		3		2	
Insurance agent.....												
Ironworker.....							1				1	
Laborer.....	1		16		11		12		9		5	
Lawyer.....												
Machinist.....							3		1		1	
Marbleworker.....			1									
Merchant.....												
Meat cutter.....												
Miller.....			1				1		1		1	
Minister.....					1		1					

ALLEGED CAUSE OF INSANITY OF THOSE ADMITTED DURING THE YEAR.

CAUSE.	AGE.														Unknown.
	Under 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		Over 70.		
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	
Alcoholism.....					1				1			1			
Adolescence.....	1									1					
Apoplexy.....															
Childbirth.....						2						1			
Climactic.....						1			1						
Convulsions.....										1					
Death in family.....				1		2									
Disappointment.....				2		1			1						
Domestic trouble.....				1		1									
Epilepsy.....		1				5		5		1					
Erysipelas.....				4		1									
Excessive use of liquor.....				1		2		3							
Excessive use of morphine.....				1											
Excitement, religious.....				3		1			1						
Fright.....									1						
Hemiplegia.....								3							
Hemorrhage, cerebral.....								3				1			
Heredity.....	1			3		2		5	6	1	1	3	1		
Ill health.....				1		3		3	1	1	1	1			
Imbecility.....															
Injury.....						1			3			1			
Infirmity of age.....														1	
Insanity of wife.....															
Intemperance.....				1		5		2	4	6	1				
Loss, financial.....						1			1	1					
Masturbation.....															
Meningitis.....						1		1							
Morphine habit.....															
Mumps.....	1														
Overstudy.....															
Overwork.....				1											
Overheated.....				1				3	1	2					
Pneumonia.....									1			1			
Paranoia.....															
Puerperium.....					1										
Senility.....															
Syphilis.....				1		3		3				4	13	1	

FORM OF INSANITY AND PREVIOUS DURATION OF DISEASE IN PATIENT, FROM OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

DURATION.

FORM.	Under 1 Month.		1 to 3 Months.		3 to 6 Months.		6 to 12 Months.		1 to 2 Years.		2 to 5 Years.		5 to 10 Years.		10 to 20 Years.		Over 20 Years.		Duration Unknown		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Alcoholism.....	1		3		2		1		1		3		4								15	
Alcoholism, acute.....			2										1								3	
Dementia, alcoholic.....		1																				
Dementia, organic.....			4						2	1												
Dementia, praecox.....		3	1	4	1	2	3	1	3	1	3	2	1							3		
Dementia, primary.....	1		1	1	2	2	1	1	1													
Dementia, secondary.....																						
Dementia, senile.....																						
Dementia, syphilitic.....																						
Dementia, terminale.....	1		3		1	1	3		3	1	10	1		3						2		
Dementia, parietic.....																						
Imbecility.....																						
Insanity, climacteric.....																						
Insanity, epileptic.....																						
Insanity, hysterical.....		1																				
Insanity, puerperal.....																						
Hypomania.....																						
Kleptomania.....																						
Mania.....																						
Mania, acute.....																						
Mania, chronic.....	10	5	11	5	9	1	4		3	4	1	2	1							2		
Mania, epileptic.....																						
Mania, periodic.....	1		1		1		1		6	1	3	1	2							3	39	
Mania, depressive.....																						
Mania, alcoholic.....																						
Mania, recurrent.....																						
Mania, sub-acute.....	1	2																				
Melancholia.....																						
Melancholia, acute.....																						
Melancholia, agitata.....																						
Melancholia, chronic.....	8	1	6	7	6	9	2	2	1	4	1	2	1							4	14	
Melancholia, predisposing.....																						
Melancholia, recurrent.....																						
Morbidomania.....																						
Neurasthenia.....																						
Paranoia.....																						
Paresis.....	1	1	2	1	1	1	1	1	2		3	1	1							1	1	
	2		2		3	1	1	1	3											11	1	
																				1	1	
																				2	2	
Total.....	26	17	40	24	32	23	21	15	31	24	40	20	26	8	8	1	3		4	44	231	176

COUNTY REPRESENTATION.

COUNTIES.	Quota.	Movement of Population, October 1, 1910, to September 30, 1911.						Present at Close Fiscal Year.		Clothing Account.
		Admitted.		Discharged.		Died.		Male.	Fem.	
		Male.	Fem.	Male.	Fem.	Male.	Fem.			
Benton.....	27	2	1	2	3	3	4	11	\$103 25
Boone.....	52	5	6	2	1	2	12	19	218 00
Carroll.....	38	3	5	3	2	13	28	246 85
Clay.....	68	8	2	8	10	1	2	29	29	589 10
Clinton.....	56	5	5	2	2	2	1	21	20	229 65
Fountain.....	43	1	1	1	2	2	14	16	233 30
Hamilton.....	57	4	3	4	3	19	28	281 80
Hancock.....	40	6	7	4	3	2	1	14	17	192 05
Hendricks.....	44	6	7	2	1	1	19	25	214 20
Howard.....	70	7	4	1	2	5	1	22	18	283 85
Johnson.....	43	5	5	3	4	14	17	192 15
Marion.....	561	95	71	50	27	37	13	201	284	3,241 70
Montgomery.....	62	2	8	2	3	1	3	11	35	157 85
Morgan.....	45	5	2	1	2	1	23	17	416 65
Owen.....	30	5	1	1	1	12	12	233 60
Parke.....	47	2	2	3	2	3	17	12	197 40
Putnam.....	43	3	3	1	1	16	17	187 80
Shelby.....	57	5	5	4	1	7	4	16	24	299 80
Tippecanoe.....	85	9	10	9	5	5	4	31	47	566 20
Tipton.....	37	3	2	1	1	1	13	9	118 30
Vermillion.....	40	10	5	3	2	20	14	108 20
Vigo.....	187	24	12	23	16	10	8	65	65	1,468 05
Warren.....	23	4	1	7	9	81 65
Grant.....	*	4	5	3	5
Madison.....	*	7	5	1	6	5
White.....	*	1
Bartholomew.....	†	2	1
Dearborn.....	†	2	1	11 90
Crawford.....	†	1	13 95
Daviess.....	†	1	26 55
Dubois.....	†	1
Franklin.....	†	2	9 00
Greene.....	†	1	10 80
Huntington.....	†	2	39 95
Knox.....	†	2	6 30
Lagrange.....	†	1
Laporte.....	†	2	24 45
Martin.....	†	1	15 60
Noble.....	†	2	6 60
Perry.....	†	1	13 55
Porter.....	†	1
Posey.....	†	1
Spencer.....	†	1	8 55
Steuben.....	†	1	17 70
Sullivan.....	†	1	10 20
Allen.....	†	2	12 30
Harrison.....	†	2	17 10
Floyd.....	†	1
Jefferson.....	†	3
Lawrence.....	†	1
Ripley.....	†	1
Washington.....	†	1
Monroe.....	†	2
Total.....	231	176	127	103	91	39	626	807	\$10,111 90

*Not included in the per capita calculation.

†Counties not belonging in the Central district.

DURATION OF MENTAL DISEASE IN PATIENTS WHO RECOVERED OR DIED FROM
OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

PERIOD.	First Admitted to Any Hospital.						All Other Admissions.			
	Duration Before Admission.		Hospital Residence.		Whole Duration.		Whole Known Period of Mental Disease.		Whole Known Period of Hospital Residence.	
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
<i>a—Recovered.</i>										
Under one month.....	16	3								
From 1 to 3 months.....	11	11		1		1				
From 3 to 6 months.....	16	8	10	3	3					
From 6 to 12 months.....	4	9	34	10	24	4				
From 1 to 2 years.....	4	1	7	16	18	12	5		1	
From 2 to 5 years.....	3	2	3	6	8	13	6		8	
From 5 to 10 years.....		1		2	1	3	1		3	
From 10 to 20 years.....				2		2				
Over 20 years.....										
Duration unknown.....		5				5				
Total.....	54	40	54	40	54	40	12		12	
<i>b—Died.</i>										
Under one month.....	15	2	6	5						
From 1 to 3 months.....	16	6	10	4	2	1				
From 3 to 6 months.....	14	6	10	5	8	4				
From 6 to 12 months.....	11	4	15	4	12	3	1		1	
From 1 to 2 years.....	10	4	4	4	13	6				2
From 2 to 5 years.....	13	6	26	6	31	5	5	2	5	3
From 5 to 10 years.....	4	3	11	2	14	3	4		4	1
From 10 to 20 years.....		3	5	8	6	8	1	1	1	1
Over 20 years.....	1		4	1	5	4	3	4	3	1
Duration unknown.....	7	5				5				
Total.....	91	39	91	39	91	39	14	7	14	7

AGE AND MARITAL CONDITION OF THOSE ADMITTED, DISCHARGED AND DIED DURING THE YEAR.

AGE.	ADMITTED.				DISCHARGED.								DIED.			
					Recovered.				Otherwise.							
					Single.		Married.		Single.		Married.					
	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
Under 20 years.....	12	2			7				5	2			1			
From 20 to 30 years.....	37	23	7	21	7	2	4	11	14	6			6	3		
From 30 to 40 years.....	25	14	27	35	4	2	14	11	8	6	10	13	12	5	16	5
From 40 to 50 years.....	18	7	32	32	2	3	9	7	4	4	10	14	4	2	9	8
From 50 to 60 years.....	8	12	24	9	1		5	2	3		9	12	4	3	14	5
From 60 to 70 years.....	3	3	23	13		1	1	1				6	3		8	5
Over 70 years.....		1	15	4								1			11	1
Total.....	103	62	128	114	21	8	33	32	34	18	39	45	30	13	61	26

Note.—In this table those “widowed” and “divorced” are included in the number given as “married.” For the separation of these classes see another table.

DURATION OF TREATMENT OF THOSE DISCHARGED AND DIED DURING THE YEAR.

DURATION.	DISCHARGED.				DIED.	
	Recovered.		Otherwise.		Male.	Fem.
	Male.	Fem.	Male.	Fem.		
Under one month.....					6	5
From 1 to 2 months.....		1			6	2
From 2 to 3 months.....			1	2	4	1
From 3 to 6 months.....	11	2	8	2	10	5
From 6 to 9 months.....	18	8	25	6	7	2
From 9 to 12 months.....	16	3	17	4	6	2
From 1 to 2 years.....	7	16	8	26	5	4
From 2 to 3 years.....	1	6	5	8	13	3
From 3 to 4 years.....	1	1	3	7	12	2
From 4 to 5 years.....			6	2	1	1
Over 5 years.....		3		6	21	12
Total.....	54	40	73	63	91	39

NUMBER OF ATTACKS AND DURATION OF THOSE ADMITTED DURING THE YEAR.

First Admission— Duration Before Admission.	Male.	Fem.	OTHER ADMISSIONS.	Male.	Fem.
Under one month.....	25	14	Second attack.....	18	14
From 1 to 3 months.....	39	21	Third attack.....	6	5
From 3 to 6 months.....	33	22	Fourth attack.....	4	3
From 6 to 9 months.....	20	11	Fifth attack.....		
From 9 to 12 months.....	1	3	Sixth attack.....	1	
From 1 to 2 years.....	29	24	More than six attacks.....		
From 2 to 3 years.....	24	9	Unknown attacks.....		2
Over 3 years.....	27	18			
Duration unknown.....	4	30			
Total.....	202	152	Total.....	29	24
Grand Total.....				231	176

MARITAL CONDITION OF THOSE ADMITTED, DISCHARGED AND DIED DURING THE YEAR.

CIVIL CONDITION.	ADMITTED.		DISCHARGED.		DIED.	
	Male.	Fem.	Male.	Fem.	Male.	Fem.
Single.....	103	62	55	26	30	13
Married.....	106	93	66	63	54	20
Widowed.....	14	17	4	14	5	4
Divorced.....	8	4	2		2	2
Total.....	231	176	127	103	91	39

CAUSE OF DEATH.

CAUSE.	Male.	Fem.	CAUSE.	Male.	Fem.
Apoplexy.....	5	Hydrocephalus, internal.....	1
Ataxia, locomotor.....	1	Ilio colitis.....	1
Carcinoma of uterus.....	1	Inanition.....	1
Cerebro softening.....	3	Myocarditis.....	6
Congestion, pulmonary.....	1	Nephritis, acute.....	1
Convulsions, epileptic.....	15	2	Nephritis, chronic.....	7	1
Convulsions, paretic.....	5	Nephritis, interstitial.....	3
Convulsions, uraemic.....	1	Paresis.....	14	2
Convulsions, tabetic.....	1	Pneumonia.....	1
Cystitis, chronic.....	1	Pneumonia, broncho.....	4	2
Diarrhoea, chronic.....	1	Pneumonia, hypostatic.....	1
Dysentery.....	1	Sarcoma of liver and stomach.....	1
Embolism, cerebro.....	1	Sclerosis, arteric.....	1
Enterocolitis.....	1	Sclerosis, spinal.....	1
Epilepticus, status.....	2	2	Septicaemia.....	1
Epithelioma of face.....	1	Suicide, by hanging.....	1	2
Exhaustion of mania.....	2	Tuberculosis.....	1
Exhaustion of melancholia.....	3	Tuberculosis, pulmonary.....	7	9
Exhaustion, paretic.....	1	Tuberculosis, miliary.....	1	1
Fever, typhoid.....	1			
Heart, dilatation of.....	1			
Heart, valvular disease.....	1	Total.....	91	39
Hemorrhage, cerebral.....	3	2			

SUMMARY OF STATISTICS FOR THE YEAR ENDING SEPTEMBER 30, 1911.

(Prepared in conformity to Resolution Adopted by the National Conference of Charities and Corrections, Philadelphia, May, 1906.)

Movement of Population.

	Males.	Females.	Total.
Number of inmates enrolled October 1, 1910.....	667	862	1,529
Temporarily absent.....	61	111	172
Number of inmates received during year.....	231	174	405
Number of inmates discharged during year.....	218	142	360
Number of inmates enrolled September 30, 1911.....	680	894	1,574
Temporarily absent.....	54	87	141
Daily average attendance of inmates for year ending September 30, 1911.....	621.706	801.315	1,423.021
Average number of officers and employes.....	341.849

Expenditures.

ORDINARY EXPENSES.	Total.	Per Capita.
Administration (salaries and wages).....	\$125,698 68	\$88.3335
Subsistence.....	105,407 00	74.0899
Clothing.....	11,206 95	7.8755
Office, domestic and outdoor expenses.....	78,455 60	55.1346
Ordinary repairs*.....	24,269 22	17.0549
Total.....	\$345,037 45	\$242.4718
EXTRAORDINARY EXPENSES.		
Permanent Improvements.....	6,399 84	4.4974
Grand total of expenditures.....	\$351,437 29	\$246.9692
Receipts from sales of discarded property.....	2,709 76
Total net expense.....	\$348,727 53	\$245.065

*Includes \$5,866.23 paid for labor.

APPROPRIATIONS.

FUND.	Act Approved.	Regular or Specific.	Amount Available Current Year.	Expended During Year.	Balance Reverting to State Treasury.
Maintenance.....	March 4, 1911...	Regular...	\$325,000 00	\$310,903 09	\$14,096 91
Repairs.....	March 4, 1911...	Regular...	25,000 00	23,457 97	1,542 03
Clothing.....	March 4, 1911...	Regular...	15,000 00	13,583 20	1,416 80
Vegetable house.....	March 3, 1909...	Specific....	1,500 00		1,500 00
Upholsterer's department.....	March 3, 1909...	Specific....	3,500 00	3,493 03	6 97
Total.....			\$370,000 00	\$351,437 29	\$18,562 71

SUMMARY OF EXPENDITURES FROM OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

MONTH.	Maintenance.	Repairs.	Clothing.	Upholster- er's De- partment.	Total.
October, 1910.....	\$30,414 09	\$854 44	\$1,651 16		\$32,919 69
November, 1910.....	24,970 30	1,094 40	1,351 69	\$3,493 03	30,909 42
December, 1910.....	29,173 58	1,359 99	1,180 20		31,713 77
January, 1911.....	27,307 88	1,596 70	1,675 97		30,580 55
February, 1911.....	24,600 71	1,219 19	570 25		26,390 15
March, 1911.....	27,687 92	881 24	591 60		29,160 76
April, 1911.....	23,997 76	1,303 25	1,683 05		26,984 06
May, 1911.....	22,838 03	3,315 10	738 19		26,891 32
June, 1911.....	22,990 07	1,464 51	754 39		25,208 97
July, 1911.....	24,898 51	4,422 21	1,122 48		30,443 20
August, 1911.....	25,501 22	2,579 36	847 39		28,927 97
September, 1911.....	26,523 02	3,367 58	1,416 83		31,307 43
Total.....	\$310,903 09	\$23,457 97	\$13,583 26	\$3,493 03	\$351,437 29

CLASSIFIED EXPENDITURES, OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

CURRENT EXPENSES.	Amount.	Per Capita.
<i>Administration.</i>		
Trustees.....	\$1,200 00	\$0.8433
Officers.....	22,692 50	15.9469
Attendants.....	53,677 30	37.7212
Other employes.....	48,128 88	33.8221
Total.....	\$125,698 68	\$88.3335
<i>Subsistence.</i>		
Fresh meats.....	\$29,555 86	\$20.7701
Salt meats and lard.....	12,585 76	8.8445
Fish and oysters.....	1,093 60	.7685
Butter, eggs and poultry.....	12,039 20	8.4604
Vegetables.....	7,029 52	4.9399
Fresh fruits.....	1,984.21	1.3944
Dried fruits.....	2,939 24	2.0655
Canned goods.....	893 50	.6279
Bread stuffs, cereals, beans, etc.....	12,509 14	8.7906
Vinegar and syrup.....	565 90	.3976
Tea, coffee and sugar.....	11,361 01	7.9839
Milk.....	9,479 25	6.6614
Other foods.....	3,370 81	2.3688
Total.....	\$105,407 00	\$74.0735
<i>Clothing.</i>		
Suits, etc.....	\$3,592 50	\$2.5245
Shoes.....	2,104 50	1.4789
Tailor and sewing room supplies.....	3,167 02	2.2256
Miscellaneous.....	2,342 93	1.6465
Total.....	\$11,206 95	\$7.8755
<i>Ordinary Repairs and Improvements.</i>		
Material, etc.....	\$18,402 99	\$12.9325
Labor.....	58,269 23	4.1224
Total.....	\$24,269 22	\$17.0549
<i>Office, Domestic and Outdoor Departments.</i>		
Library, newspapers, etc.....	\$410 30	\$0.2883
Stationery and printing.....	3,709 73	2.6070
House furnishings.....	14,057 90	9.8790
Laundry supplies, soaps, etc.....	5,632 41	3.9581
Medical supplies.....	2,512 59	1.7657
Postage, telegraph, telephone.....	870 03	.6114
Freight and transportation.....	294 48	.2069
Stable, farm, garden, etc.....	3,153 67	2.2162
Tobacco.....	1,329 34	.9342
Music and amusements.....	484 75	.3406
Fuel.....	38,282 83	26.9029
Light.....	250 20	.1758
Engineer's supplies.....	549 04	.3858
Water.....	4,361 43	3.0649
Boiler insurance.....	60 00	.0422
Other classifications.....	2,496 90	1.7546
Total.....	\$78,455 60	\$55.1336
<i>Extraordinary Expenses.</i>		
Upholsterer's department.....	\$3,493 03	\$2.4547
New lighting system on grounds.....	2,051 24	1.4415
New iron and wire fence.....	855 57	.6012
Total.....	\$6,399 84	\$4.4974
Grand total.....	\$351,437 29	\$246.9692
Less earnings paid to state treasurer.....	2,709 76	
Total net cost to State.....	\$348,727 53	\$245.0650

FARM AND GARDEN PRODUCTS, OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

PRODUCT.	Quantity Raised.	Estimated Value.	Estimated Value of Products Used During the Year.		
			In Kitchen.	In Outdoor Departments.	Total.
Tomatoes.....	1,904 bushels.....	\$942 80	\$942 80		\$942 80
Tomatoes, green.....	321 bushels.....	80 25	80 25		80 25
Kraut.....	89 barrels.....	623 00	623 00		623 00
Pumpkins.....	2,204.....	88 20	88 20		88 20
Cabbage.....	464 barrels.....	605 00	605 00		605 00
Turnips.....	155 barrels.....	199 75	199 75		199 75
Parsnips.....	354 barrels.....	508 50	508 50		508 50
Beets.....	221 barrels.....	343 50	343 50		343 50
Beets.....	39 doz. bunches.....	8 10	8 10		8 10
Sage.....	7 barrels.....	19 50	19 50		19 50
Beans.....	888 bushels.....	908 50	908 50		908 50
Celery.....	87 doz. bunches.....	25 60	25 60		25 60
Horse radish.....	11 gallons.....	6 60	6 60		6 60
Lettuce.....	298 5 bushels.....	187 60	187 60		187 60
Greens.....	29 barrels.....	39 75	39 75		39 75
Peas.....	8 bushels.....	10 00	10 00		10 00
Radishes.....	11 barrels.....	22 00	22 00		22 00
Radishes.....	133 doz. bunches.....	21 95	21 95		21 95
Musk melons.....	119 barrels.....	207 50	207 50		207 50
Onions, dry.....	100 bushels.....	96 80	96 80		96 80
Onions, winter.....	76 barrels.....	152 00	152 00		152 00
Onions, winter.....	56 doz. bunches.....	7 40	7 40		7 40
Onions, spring.....	104 barrels.....	182 00	182 00		182 00
Onions, spring.....	38 doz. bunches.....	3 80	3 80		3 80
Cauliflower.....	28 dozen.....	28 00	28 00		28 00
Pie plant.....	84 barrels.....	168 00	168 00		168 00
Pie plant.....	65 doz. bunches.....	9 50	9 50		9 50
Corn(roasting ears).....	3,444 dozen.....	275 52	275 52		275 52
Lima beans.....	12 gallons.....	9 00	9 00		9 00
Egg plant.....	15 dozen.....	11 25	11 25		11 25
Cucumbers.....	19 dozen.....	3 80	3 80		3 80
Wood.....	14 cords.....	49 00		\$49 00	49 00
Lumber (sawed).....	1,178 feet.....	23 56		23 56	23 56
Total value.....		\$5,867 73	\$5,795 17	\$72 56	\$5,867 73

Expenses in production, \$2,163 61.

EARNINGS DEPOSITED WITH STATE TREASURER.

DATE.	Number of Quietus.	Amount.
November 7, 1910.....	2782	\$313 34
December 5, 1910.....	2986	241 93
January 2, 1911.....	*	212 83
February 6, 1911.....	3289	184 51
March 6, 1911.....	3465	292 85
April 3, 1911.....	3639	277 52
May 1, 1911.....	3853	193 22
June 5, 1911.....	4011	166 93
July 3, 1911.....	4182	174 89
August 7, 1911.....	4250	310 81
September 5, 1911.....	4278	160 58
September 28, 1911.....	4412	180 35
Total.....		\$2,709 76

*No number.

INVENTORY.

Real estate, 160 acres.....	\$160,000 00
Buildings.....	1,394,250 00
Improvements (sewerage, water, gas systems, cement walks and tunnels.....)	54,000 00
Equipment.....	395,592 81
Total.....	\$2,003,842 81

INVENTORY, SEPTEMBER 30, 1911.

DEPARTMENT.	Apparatus, Plant.	Equipment, Tools, Etc.	Stock, Material, Books.	Total.
Housekeeper, department for women.....		\$7,505 70		\$7,505 70
Housekeeper, department for men.....		4,692 35		4,692 35
Housekeeper, storehouse.....		1,651 00		1,651 00
Ward property, department for men.....		25,474 50		25,474 50
Ward property, department for women.....		26,799 58		26,799 58
Dining department.....		2,212 85	\$253 95	2,466 80
General kitchen, department for men.....		3,507 25	402 04	3,909 29
General kitchen, department for women.....		5,011 00	1,656 86	6,667 86
Store.....		248 50	7,858 81	8,107 31
Bakery.....		1,016 50	183 87	1,200 37
Butcher shop.....		76 00	1,691 59	1,767 59
Upholster shop.....		185 70	604 36	790 06
Tin shop.....		620 30	657 90	1,278 20
Barber shop and club room.....		284 75		284 75
Laundry.....	\$11,000 00	1,238 80	31 50	12,270 30
Clothing department.....		304 80	8,809 09	9,113 89
Engineer department.....		5,213 30	2,423 79	
Stirling boilers, pumps, coal apparatus.....	90,000 00			
Pumps and pipe line to:				
Department for men.....	17,170 00			
Department for women.....	22,195 00			
Pathological department and other buildings.....	13,870 00			
Plumbing and heating plant at hospital for sick.....	12,948 00			
Ice plant and cold storage.....	6,335 00			
Electrical department.....		508 67	728 72	170,155 09
Electric plant, wires, etc.....	36,094 00			
Fire alarm system.....	240 00			
Domestic telephone system.....	2,385 54			
Turbines and switch board.....	11,891 00			
Carpenter department.....		1,612 65	9,437 55	11,050 20
Paint shop.....		28 00	850 00	878 00
Plaster shop.....		6 00	9 75	15 75
Fire department.....	4,610 00	5,889 00		10,499 00
Police department.....		50 00		50 00
Officers' barn.....		2,430 00	43 00	2,473 00
Chapel, porters' department.....		408 50		408 50
Florists' department.....		1,977 20	6,494 58	8,471 78
Farm, garden and barn.....		1,915 70	108 90	2,024 60
General library, 2,218 volumes.....			1,727 00	1,727 00
Drug department.....		439 75	1,418 00	1,857 75
Surgical instruments for general use.....		186 55		186 55
Pathological department and scientific library, 918 volumes.....		6,049 86	3,387 39	9,437 25
Hospital for sick insane.....		10,345 36	185 70	10,531 06
Total.....	\$228,738 54	\$117,890 12	\$48,964 15	\$395,592 81

OFFICERS AND EMPLOYEES, SEPTEMBER 30, 1911.

POSITION.	Number Employed.	Salary.	Additional Compensation.
		Per Year.	
Superintendent.....	1	\$5,000 00	Residence and maintenance for family.
Physician.....	4	1,500 00	Maintenance.
Physician.....	1	1,200 00	Maintenance.
Clinical psychiatrist.....	1	1,800 00	Maintenance.
Assistant pathologist.....	1	720 00	Maintenance.
		Per Month.	
Housekeeper.....	1	35 00	Maintenance.
Housekeeper.....	1	30 00	Maintenance.
Steward.....	1	125 00	Maintenance.
Storekeeper.....	1	100 00	Maintenance.
Bookkeeper.....	1	100 00	Nothing.
Secretary.....	1	150 00	Maintenance.
Assistant secretary.....	1	75 00	Nothing.
Record clerk.....	1	50 00	Maintenance.
Druggist.....	1	90 00	Maintenance.
Usher, department for men.....	2	45 00	Maintenance.
Usher, department for women.....	2	28 00	Maintenance.
Usher, department for women.....	1	30 00	Maintenance.
Supervisor, department for men.....	3	60 00	Maintenance.
Supervisress, department for men.....	1	30 00	Maintenance.
Supervisress, department for women.....	3	40 00	Maintenance.
Barber.....	1	25 00	Maintenance.
Assistant barber.....	1	35 00	Maintenance.
Butcher.....	1	50 00	Nothing.
Upholsterer.....	1	60 00	Nothing.
Florist.....	1	60 00	Maintenance.
Assistant florist.....	1	35 00	Maintenance.
Assistant florist.....	1	30 00	Maintenance.
Gardener.....	1	60 00	Maintenance.
Farm hands.....	2	25 00	Maintenance.
Teamster.....	1	32 00	Maintenance.
Coachman.....	1	30 00	Maintenance.
Porter.....	2	28 00	Maintenance.
Policemen.....	5	35 00	Maintenance.
Night watch, department for men.....	6	35 00	Maintenance.
Night watch, department for women.....	6	30 00	Maintenance.
Night watch, department for men.....	1	30 00	Maintenance.
Night watch, department for women.....	1	27 50	Maintenance.
Baker.....	1	60 00	Nothing.
Baker.....	1	45 00	Maintenance.
Baker.....	1	35 00	Maintenance.
Engineer.....	1	125 00	Maintenance.
Dynamo engineer.....	1	45 00	Maintenance.
Electrician.....	1	100 00	Maintenance.
Assistant electrician.....	1	60 00	Maintenance.
Cook.....	2	50 00	Maintenance.
Cook.....	1	30 00	Maintenance.
Cook, department for women.....	1	25 00	Maintenance.
Cook.....	1	24 00	Maintenance.
Cook.....	1	22 00	Maintenance.
Cook.....	2	20 00	Maintenance.
Kitchen girls.....	16	18 00	Maintenance.
Kitchen detail.....	1	30 00	Maintenance.
Kitchen detail.....	2	28 00	Maintenance.
Chief dining department.....	1	70 00	Nothing.
Dining room attendant, male.....	1	32 00	Maintenance.
Dining room attendants, male.....	5	30 00	Maintenance.
Dining room attendants, female.....	3	18 00	Maintenance.
Dining room girls.....	6	16 00	Maintenance.
Housemaid.....	1	20 00	Maintenance.
Housemaids.....	10	16 00	Maintenance.
Chief laundress.....	1	50 00	Maintenance.
Assorters.....	3	20 00	Maintenance.
Sterilizer.....	1	25 00	Maintenance.
Machine washers.....	2	25 00	Maintenance.
Machine wringers.....	2	20 00	Maintenance.
Machine ironer.....	1	20 00	Maintenance.
Machine ironers.....	4	18 00	Maintenance.
Laundress.....	2	20 00	Maintenance.
Ironers.....	15	16 00	Maintenance.
Attendants, female.....	1	35 00	Maintenance.
Attendants, female.....	25	25 00	Maintenance.
Attendants, female.....	5	24 00	Maintenance.

OFFICERS AND EMPLOYEES, SEPTEMBER 30, 1911—Continued.

POSITION.	Number Employed.	Salary.	Additional Compensation.
Attendants, female.....	10	22 00	Maintenance.
Attendants, female.....	40	20 00	Maintenance.
Attendants, male.....	2	35 00	Maintenance.
Attendants, male.....	3	32 00	Maintenance.
Attendants, male.....	7	30 00	Maintenance.
Attendants, male.....	55	28 00	Maintenance.
Chief carpenter.....	1	100 00	Maintenance.
Carpenter.....	1	45 00	Maintenance.
Carpenters.....	4	40 00	Maintenance.
Repairman and plumber.....	1	75 00	Maintenance.
Repairman and plumber.....	1	60 00	Maintenance.
Repairman and plumber.....	3	40 00	Maintenance.
Tinner.....	1	60 00	Nothing.
Tinner's helper.....	1	30 00	Maintenance.
Chief seamstress.....	1	40 00	Maintenance.
Assistant seamstress.....	1	25 00	Maintenance.
Seamstresses.....	3	20 00	Maintenance.
Seamstresses.....	2	18 00	Maintenance.
Seamstresses.....	4	16 00	Maintenance.

PAYROLL, BY DEPARTMENTS AND FUNDS. FISCAL YEAR 1910-1911.

DEPARTMENT.	Extra Labor.	Main Payroll.	Repairs.	Clothing.	Total.
Officers.....		\$22,692 50			\$22,692 50
Department for men.....		26,692 70			26,692 70
Department for women.....		22,000 15			22,000 15
Hospital for sick insane.....		7,920 20			7,920 20
House department.....		3,508 70			3,508 70
Dining department.....		4,549 40			4,549 40
Kitchen department.....		4,833 15			4,833 15
Laundry department.....		6,363 40			6,363 40
Gardener's department.....		4,048 65			4,048 65
Engineer's department.....	\$7,955 88	2,488 40	\$2,071 00		12,515 28
Electrical department.....		1,965 30			1,965 30
Bakery.....	20 20	1,603 45			1,623 65
Police department.....		1,954 75			1,954 75
Other "outdoor" departments.....		3,270 60			3,270 60
Carpenter department.....			2,626 90		2,626 90
Tinner department.....			886 00		886 00
Sewing (clothing) department.....				\$2,376 25	2,376 25
Total payroll.....	\$7,976 08	\$113,891 35	\$5,583 90	\$2,376 25	\$129,827 58
Less paid extra labor.....					7,976 08
Total regular payroll.....					\$121,851 50

BALANCE SHEET, SEPTEMBER 30, 1911.

Central Indiana Hospital for Insane.....		\$2,361,738 55
Real estate.....	\$1,608,250 00	
Personal property.....	393,691 45	
Maintenance fund.....	14,096 91	
Repair fund.....	1,542 03	
Clothing fund.....	1,416 80	
Vegetable house fund.....	1,500 00	
Upholsterer's department fund.....	6 97	
Subsistence.....	105,407 00	
Repair, material, etc.....	17,876 77	
Clothing.....	1,095 05	
Ward supplies.....	1,622 47	
Laundry supplies.....	5,632 41	
Engineer's supplies.....	549 04	
Medical supplies.....	2,512 59	
House furnishings.....	14,052 90	
Light.....	250 20	
Fuel.....	38,282 83	
Water.....	4,361 43	
Salaries and wages.....	131,282 58	
Newspapers, library, etc.....	410 30	
Telephone, telegraph, etc.....	365 03	
Stable, farm, etc.....	3,998 24	
Incidentals.....	2,626 38	
Stationery.....	3,709 73	
Permanent improvements.....	6,352 82	
Fire protection.....	846 62	
Earnings.....		2,709 76
W. S. Chambers.....	2,709 76	
Total.....	\$2,364,448 31	\$2,364,448 31

Other Financial Statements

EXHIBIT No. 1.

*A Record of the Sales of Discarded Property, Etc., During the Fiscal Year
Ending September 30, 1911, and Proceeds Paid to State Treasurer
by Central Indiana Hospital for Insane.*

		<i>To Whom Sold.</i>	<i>Articles.</i>	<i>Amount.</i>
Oct.	1.	W. O. Dell.....	Slops for October, 1910.....	\$68 43
"	1.	H. Cohen	785 lbs. No. 1 rags.....	10 60
"	1.	H. Cohen	915 lbs. No. 2 rags.....	3 66
"	1.	H. Cohen	2,050 lbs. bones.....	13 84
"	31.	Wm. O. Dell.....	Slops for November, 1910....	68 44
"	31.	Wm. Woessner.....	12 old rubber sheets.....	1 20
"	31.	A. Finkle	11 pots, 3½ lbs. tinfoil and bottles	3 63
"	31.	D. Hoyt	32 old barrels.....	1 60
"	31.	Chas. Huber	3 boxes, 1 barrel refused corn	1 45
"	31.	A. Vance	1 box.....	35
"	31.	V. C. Davis.....	1 pickle keg.....	40
"	31.	Harry Gumper.....	14 old pots.....	1 68
"	31.	Fannie Dunn.....	1 old barrel.....	40
"	31.	W. Woden.....	1 pickle keg.....	35
"	31.	Wm. Moench.....	1½ barrel refused corn and 1 box	1 30
"	31.	Wm. Pierson.....	2 barrels scrap.....	80
"	31.	Century Biscuit Co.....	70 cracker barrels.....	10 50
"	31.	General Electric Co.....	Money refunded for returned supplies	44 30
"	31.	John Wachtel.....	1,000 lbs. grease at \$1.60....	16 00
"	31.	H. Cohen.....	1,070 lbs. No. 1 rags.....	14 45
"	31.	H. Cohen.....	940 lbs. No. 1 rags.....	12 70
"	31.	H. Cohen.....	1,685 lbs. No. 2 rags.....	6 74
"	31.	W. S. Johnson.....	185 old barrels.....	30 52
Nov.	1.	Jos. Haas.....	859 lbs. clear grease.....	42 95
"	1.	General Electric Co.....	Overpaid account by error...	1 00
"	1.	M. C. Hunt.....	28 sal soda kegs.....	2 24
"	16.	Alex Cohen.....	4,900 lbs. old iron pipe.....	27 56
"	16.	Alex Cohen.....	500 lbs. burnt iron.....	2 81
"	16.	Alex Cohen.....	1,500 lbs. sheet iron.....	2 25
"	16.	Alex Cohen.....	263 lbs. tea lead.....	9 87
"	23.	Chas. Huber.....	8 old boxes.....	45
"	23.	Wm. F. Cobb.....	1 old box.....	25
"	23.	W. O. Dell.....	1 old tin can.....	25
"	23.	Ben Finkle.....	4 pots, shoes, brass, copper, etc.	2 50
"	23.	H. Doene.....	1 syrup barrel.....	40
"	25.	D. Epstine	10 old pots.....	1 10
"	25.	James Barnett	1 old barrel and bucket.....	15
"	28.	W. O. Dell.....	Slops for December, 1910....	68 43
"	29.	Wm. Woessner.....	2 old rubber sheets.....	20
"	29.	Ben Finkle.....	1 old iron bed.....	40
"	30.	W. S. Johnson.....	145 old barrels.....	23 92
"	30.	H. Cohen.....	4,415 lbs. bones.....	29 80
"	30.	H. Cohen.....	855 lbs. No. 1 rags.....	11 54
"	30.	H. Cohen.....	925 lbs. No. 2 rags.....	3 70
"	30.	H. Cohen.....	297 small boxes.....	8 91
"	30.	H. Cohen.....	4 old barrels.....	1 25

EXHIBIT No. 1—Continued.

	1910.	To Whom Sold.	Articles.	Amount.
Dec.	1.	John Wachtel	748 lbs. No. 2 grease.....	\$12 54
"	1.	John Wachtel	486 lbs. green bones.....	72
"	2.	H. Gimple	Old nails.....	25
"	6.	W. Robinson	2 old boxes.....	50
"	22.	D. Hoyt	30 old barrels.....	1 50
"	29.	Wm. Woessner	3 old rubber sheets.....	35
"	31.	John Wachtel	1,969 lbs. No. 2 grease.....	31 50
"	31.	H. Cohen	8 old barrels.....	3 95
"	31.	H. Cohen	218 small boxes.....	6 54
"	31.	H. Cohen	1,545 lbs. bones.....	10 43
"	31.	H. Cohen	1,220 lbs. No. 1 rags.....	16 47
"	31.	H. Cohen	1,105 lbs. No. 2 rags.....	4 42
"	31.	Joseph Haas	550 lbs. No. 1 grease.....	27 50
"	31.	W. S. Johnson	168 barrels.....	27 72
1911.				
Jan.	1.	W. O. Dell	Slops for January, 1911.....	68 44
"	1.	Cincinnati Electric Lamp Co.	1,490 old lamps.....	7 54
"	1.	Barbara Hanson	Making 2 dresses.....	1 00
"	20.	Wm. Woessner	8 old rubber sheets.....	1 25
"	20.	A. D. Craig	5 large boxes.....	2 25
"	20.	Chas. Huber	2 large boxes.....	55
"	21.	Dana Bros.	1 old barrel.....	50
"	23.	D. Hoyt	36 old barrels.....	2 10
"	23.	A. Finkle	Old shoes, bottles, etc.....	81
"	30.	A. Finkle	Refused corn and junk.....	50
"	30.	A. Finkle	19 lbs. tinfoil.....	3 30
"	31.	W. O. Dell	Slops for February, 1911....	68 43
"	31.	W. S. Johnson	182 barrels.....	28 21
"	31.	Jos. Haas	820 lbs. old grease.....	32 80
"	31.	Alex Cohen	1,885 lbs. rags.....	24 97
"	31.	H. Cohen	15 old barrels.....	3 55
"	31.	H. Cohen	225 small boxes.....	6 75
Feb.	6.	James Barnett	Green bones.....	5 00
"	6.	J. Johnson	4 boxes.....	1 00
"	9.	Wm. Woessner	4 old rubber sheets.....	40
"	13.	A. Finkle	Old rubber boots, etc.....	50
"	13.	John Wachtel	Green bones.....	50
"	14.	Charles Bailey	1 old black horse.....	90 00
"	14.	Charles Bailey	1 old bay horse.....	30 00
"	20.	Alex Cohen	2,180 lbs. bones.....	18 14
"	27.	Wm. Woessner	3 old rubber sheets, old shoes	45
"	28.	S. Dickman	4 boxes.....	1 00
"	28.	W. O. Dell	Slops for March, 1911.....	68 44
"	28.	W. S. Johnson	276 old barrels.....	42 78
"	28.	Alex Cohen	2,615 lbs. mixed rags.....	34 64
Mar.	8.	Wm. Robinson	Part of old harness.....	2 00
"	13.	Chas. Bailey	260 lbs. old iron.....	1 50
"	13.	Wm. Woessner	3 old rubber sheets, old shoes	40
"	13.	Wm. McNealy	1 old basket.....	05
"	15.	J. W. Wachtel	Green bones.....	80
"	15.	David Hoyt	2 pickle kegs.....	50
"	17.	A. Cassel	6 small boxes.....	25
"	17.	C. Mayer	1 pickle keg.....	15
"	27.	M. C. Hunt	20 sal soda kegs.....	1 60
"	30.	H. Cohen	288 small boxes.....	8 65
"	30.	H. Cohen	10 old barrels.....	3 00
"	30.	William Moench	1 barrel refused corn.....	75
"	30.	W. O. Dell	Slops for April, 1911.....	68 43

EXHIBIT No. 1—Continued.

	1911.	To Whom Sold.	Articles.	Amount.
Mar.	30.	Jos. Haas.....	2,550 lbs. old grease.....	\$102 00
"	30.	Century Biscuit Co.....	96 cracker barrels.....	14 40
"	30.	W. S. Johnson.....	187 old barrels.....	28 98
"	31.	Alex Cohen.....	1,820 lbs. rags.....	24 11
"	31.	Alex Cohen.....	2,120 lbs. bones.....	17 65
"	31.	Jos. Haas.....	1 old can.....	25
"	31.	H. Gimble.....	Old junk.....	45
"	31.	Arch Wise.....	6 boxes.....	1 60
Apr.	15.	Wm. Cane.....	3 old boxes.....	50
"	15.	W. E. Cochran.....	2 mustard jars.....	05
"	24.	A. C. Cassel.....	1 box.....	10
"	24.	Wm. Woessner.....	17 old rubber sheets.....	1 40
"	24.	W. F. Cobb.....	1 box.....	25
"	24.	O. F. Cox.....	2 boxes.....	50
"	26.	M. N. Martindale.....	1 box.....	20
"	27.	H. Gimble.....	3 pairs old rubber boots, pa- per, etc.....	2 20
"	29.	Century Biscuit Co.....	50 cracker barrels.....	7 50
"	29.	W. O. Dell.....	Slops for May, 1911.....	68 44
"	29.	H. Kohnstamm.....	Freight refunded.....	45
"	29.	Nathan Plaut & Co.....	Freight refunded.....	1 08
"	29.	H. Cohen.....	11,090 lbs. scrap pipe.....	50 18
"	29.	H. Cohen.....	2,765 lbs. burned iron.....	13 13
"	29.	H. Cohen.....	5,655 lbs. sheet iron.....	14 84
"	29.	H. Cohen.....	134 small boxes.....	4 02
"	29.	D. Hoyt.....	14 old barrels.....	4 05
"	29.	W. S. Johnson.....	157 old barrels.....	24 33
May	3.	C. Brokenkecker.....	1 small box.....	20
"	4.	H. Gimble.....	Old rubber boots, etc.....	1 20
"	5.	G. B. Stricker.....	2 large boxes.....	50
"	5.	W. Woessner.....	9 old rubber sheets.....	1 05
"	8.	Joe Funk.....	1 barrel refused corn, etc... 85	1 40
"	8.	Wm. Moench.....	1 barrel refused corn, etc... 80	85
"	18.	H. Gimble.....	9 old pots.....	80
"	18.	H. Gimble.....	Old paper, shoes, etc.....	75
"	18.	Chas. Greenwood.....	1 barrel refused corn.....	85
"	29.	Wm. McNealy.....	1 small box.....	10
"	29.	D. Hoyt.....	30 old barrels.....	1 50
"	31.	W. S. Johnson.....	211 old barrels.....	32 70
"	31.	W. O. Dell.....	Slops for June, 1911.....	68 43
"	31.	Jos. Haas.....	1,235 lbs. grease.....	49 40
"	31.	Century Biscuit Co.....	48 cracker barrels.....	7 20
June	1.	Alex Cohen.....	2,565 lbs. rags.....	33 98
"	1.	Alex Cohen.....	1,235 lbs. bones.....	10 25
"	30.	Century Biscuit Co.....	52 cracker barrels.....	7 80
"	30.	M. C. Hunt.....	14 sal soda kegs.....	1 12
"	30.	W. O. Dell.....	Slops for July, 1911.....	68 44
"	30.	W. S. Johnson.....	240 old barrels.....	37 20
"	30.	Hannah Hanson.....	Making 2 dresses, 3 skirts... 1 00	1 45
"	30.	Francis Bergman.....	12 sal soda kegs.....	1 00
"	30.	Wm. Woessner.....	3 old rubber sheets.....	30
"	30.	J. W. Wachtel.....	Green bones.....	95
"	30.	D. Hoyt.....	Old desk and barrels.....	2 00
"	30.	H. Cohen.....	14 old barrels.....	4 15
"	30.	H. Cohen.....	145 small boxes.....	4 35
"	30.	H. Gimble.....	Paper, junk, wire, pots.....	1 90
July	5.	Alex Cohen.....	3,500 lbs. rags.....	46 37
"	5.	R. Vaught.....	1 syrup barrel.....	45

EXHIBIT No. 1—Continued.

1911.	To Whom Sold.	Articles.	Amount.
July 5.	R. S. Squire.....	1 old box.....	\$0 30
" 22.	Wm. Woessner.....	4 old rubber sheets.....	50
" 31.	Alex Cohen.....	3,045 lbs. rags.....	40 34
" 31.	Alex Cohen.....	2,375 lbs. bones.....	19 77
" 31.	Jos. Haas.....	2,715 lbs. grease.....	108 60
" 31.	W. O. Dell.....	Slops for August, 1911.....	68 43
" 31.	R. S. Camplin.....	85 berry crates.....	4 25
" 31.	D. Hoyt.....	29 old cans, 8 old barrels...	1 85
" 31.	H. Gimble.....	Old pots, paper, old shoes...	1 35
" 31.	W. S. Johnson.....	120 old barrels.....	18 60
Aug. 1.	Alex Cohen.....	1,725 lbs. rags.....	22 85
" 1.	Wm. Moench.....	1 barrel refused corn.....	1 00
" 7.	Wm. Robinson.....	2 pickle kegs.....	40
" 7.	James Barnett.....	Green bones.....	5 00
" 7.	Wm. Woessner.....	3 old rubber sheets.....	35
" 18.	John Duncan.....	17 mustard jars.....	43
" 21.	John Dodson.....	1 old bath tub.....	2 00
" 22.	M. J. Coble.....	1 old box.....	30
" 23.	H. Gimble.....	Old copper, pot and rubbers..	45
" 24.	Wm. Woessner.....	3 old rubber sheets.....	30
" 25.	D. Hoyt.....	8 old vinegar barrels.....	4 80
" 30.	M. C. Hunt.....	28 sal soda kegs.....	2 24
" 30.	W. O. Dell.....	Slops for September, 1911...	68 44
" 30.	H. Cohen.....	12 old barrels.....	3 90
" 30.	H. Cohen.....	215 small boxes.....	6 45
" 31.	Century Biscuit Co.....	98 cracker barrels.....	14 70
" 31.	W. S. Johnson.....	174 old barrels.....	26 97
Sept. 1.	Alex Cohen.....	2,325 lbs. rags.....	30 80
" 7.	A. Stonehouse	1 barrel refused corn.....	85
" 12.	H. Gimble.....	4 old pots.....	50
" 13.	W. E. Cochran.....	2 old mustard jars.....	05
" 19.	Wm. Woessner.....	8 old rubber sheets.....	80
" 19.	H. Gimble.....	Old paper.....	35
" 21.	Jos. Haas.....	2,605 lbs. grease.....	104 20
" 21.	Sallie Jackson.....	Telephones April and Sept...	30
" 24.	H. Cohen.....	120 small boxes.....	3 60
" 25.	H. Cohen.....	13 old barrels.....	3 95
" 26.	Wm. Woessner.....	5 old rubber sheets.....	55
" 26.	A. C. Cassel.....	4 boxes.....	1 00
" 26.	H. Gimble.....	Old shoes, boots, pot, etc...	70
" 26.	W. S. Johnson.....	211 old barrels.....	32 70
Total			\$2,709 76

EXHIBIT No. 2.

*Vouchers Paid from Maintenance Fund During the Fiscal Year Ending
September 30, 1911.*

No.	Payable To.	What For.	Amount.
1.	Geo. F. Edenharter, Supt.....	Contingent fund.....	\$2,000 00
2.	M. O'Connor & Co.....	Groceries	1,050 68
3.	Armour & Co.....	Lard, pork loins, butterine...	1,964 76
4.	Swift & Co.....	Beef, hams, eggs, etc.....	2,889 06
5.	The Canby, Ach & Canby Co.....	Tea	173 28
6.	Indiana Reformatory.....	Brooms	219 00

EXHIBIT No. 2—Continued.

No.	Payable To.	What For.	Amount.
7.	Havens & Geddes Co.....	Muslin	\$123 62
8.	The Central Rubber & Supply Co..	Rubber boots, coats, etc.....	224 76
9.	Remington Typewriter Co.....	Type machine, etc.....	108 80
10.	Hibben, Hollweg & Co.....	Muslin, bed spreads, etc.....	489 00
11.	J. C. Perry & Co.....	Soaps, tobacco, etc.....	338 86
12.	Daniel Stewart Co.....	Drugs	138 10
13.	D. D. Mills.....	Milk	813 75
14.	Wm. Rouse & Son.....	Flour	572 00
15.	John B. Bright & Son.....	Coffee	678 22
16.	M. C. Hunt.....	Chip soap and sal soda.....	308 04
17.	John O'Neill.....	Flour	314 40
18.	Belt Elevator & Feed Co.....	Oats and corn.....	104 28
19.	J. L. Keach.....	Potatoes	498 00
20.	Century Biscuit Co.....	Crackers	166 05
21.	George Hitz & Co.....	Apples, grapes, etc.....	175 36
22.	Indianapolis Water Co.....	Water	408 71
23.	C. H. McDowell.....	Services as chaplain.....	25 00
24.	L. A. Greiner & Son.....	Veterinary services.....	25 55
25.	Harmon & Hall.....	Wagon bed.....	16 00
26.	The Fleischmann Co.....	Yeast	16 13
27.	Chas. D. Pearson & Co.....	Queensware	64 40
28.	Weber Drug Co.....	Vaccine lymph, etc.....	20 75
29.	Standard Oil Co.....	Oils, etc.....	28 15
30.	Acme Evans Co.....	Meal	24 64
31.	The Indianapolis Gas Co.....	Gas	16 68
32.	Thomas Moffat.....	Washing soda.....	44 80
33.	Balke & Krauss Co.....	Coke	11 00
34.	Western Union Telegraph Co.....	Telegrams	4 24
35.	Tutewiler & Son.....	Undertaking	7 00
36.	Techentin & Freiberg.....	Wagon apron, etc.....	4 75
37.	L. E. Morrison & Co.....	Invalid rings.....	8 50
38.	Vondersaar & Co.....	Plums	7 20
39.	Star Publishing Co.....	Legal notice.....	3 42
40.	The Indianapolis News.....	Legal notice.....	4 32
41.	D. H. Robey.....	Horse shoeing.....	1 95
42.	Indiana Fuel Supply Co.....	Coal	6,364 96
43.	George F. Edenharter, Supt.....	Expense bills, weekly pay, etc.....	669 46
44.	George F. Edenharter, Supt.....	Main payroll.....	9,286 46
45.	Swift & Co.....	Hams, pork, poultry, butter- ine, etc.....	3,283 20
46.	Morris & Co.....	Beef	1,860 02
47.	Indianapolis Water Co.....	Water	491 97
48.	Indianapolis Poultry Co.....	Eggs	450 00
49.	George Hitz & Co.....	Apples, sweet potatoes, etc.....	552 96
50.	Acme Evans Co.....	Flour and meal.....	485 38
51.	Wm. B. Burford.....	Stationery	370 20
52.	U. S. Laundry Soap & Supply Co..	Chipped soap.....	173 40
53.	Geo. A. Nicholson.....	Oysters	333 60
54.	James L. Keach.....	Potatoes, grapes, etc.....	388 84
55.	J. C. Perry & Co.....	Sorghum	175 00
56.	National Biscuit Co.....	Crackers	169 34
57.	V. Bachman.....	Flour	298 80
58.	D. D. Mills.....	Milk	681 90
59.	American Tent & Awning Co.....	Taking down awnings, etc.....	22 40
60.	M. C. Hunt.....	Sal soda.....	22 82
61.	Daniel Stewart Co.....	Drugs	42 05
62.	The Indianapolis Gas Co.....	Gas	17 70
63.	Chas. D. Pearson & Co.....	Queensware	79 40

EXHIBIT No. 2—Continued.

<i>No.</i>	<i>Payable To.</i>	<i>What For.</i>	<i>Amount.</i>
64.	Havens & Geddes Co.....	Quilts	\$96 00
65.	The August M. Kuhn Co.....	Canned corn.....	37 50
66.	Indian Refining Co.....	Oils	25 84
67.	The Fleischmann Co.....	Yeast	16 63
68.	The Fulton Evans Co.....	Filing cabinet.....	59 35
69.	L. A. Greiner & Son.....	Veterinary services.....	19 50
70.	C. H. McDowell.....	Services as chaplain.....	20 00
71.	Atlas Paper Co.....	Toilet paper.....	9 30
72.	Techentin & Freiberg.....	Harness repairs, etc.....	4 40
73.	Star Publishing Co.....	Legal notice.....	1 44
74.	The Indianapolis News.....	Legal notice.....	70
75.	The H. Lieber Co.....	Erasers	50
76.	Western Union Telegraph Co.....	Telegrams	3 45
77.	Pettis Dry Goods Co.....	Wall paper and shades.....	17 16
78.	M. O'Connor & Co.....	Groceries, etc.....	1,698 60
79.	Indiana Fuel Supply Co.....	Coal	2,577 82
80.	W. S. Johnson.....	Hauling freight.....	6 00
81.	The Canby, Ach & Canby Co.....	Coffee	352 34
82.	Tutewiler & Son.....	Undertaking	21 00
83.	Frank G. Kamps, Jr.....	Fish and oysters.....	5 26
84.	Geo. F. Edenharter, Supt.....	Expense bills, weekly, etc...	742 67
85.	Geo. F. Edenharter, Supt.....	Main payroll.....	9,355 86
86.	Swift & Co.....	Hams, eggs, turkeys, etc...	2,051 00
87.	Morris & Co.....	Beef and pork.....	1,804 51
88.	The "Sanitas" Co.....	Soap	210 00
89.	The Canby, Ach & Canby Co.....	Coffee	352 33
90.	Havens & Geddes Co.....	Ticking, quilts, etc.....	316 63
91.	W. S. Painter.....	Oysters	420 75
92.	A. Kiefer Drug Co.....	Drugs, etc.....	188 08
93.	Indianapolis Water Co.....	Water	490 39
94.	M. C. Hunt.....	Chip soap and sal soda.....	268 12
95.	Vondersaar & Co.....	Potatoes	228 40
96.	The J. F. Darmody Co.....	Candy and nuts.....	224 75
97.	Armour & Co.....	Butterine	624 00
98.	The Geiger-Tinney Co.....	Tea	127 58
99.	M. O'Connor & Co.....	Chambers	175 00
100.	C. H. McDowell.....	Services as chaplain.....	20 00
101.	The Indianapolis Gas Co.....	Gas	18 18
102.	H. J. Heinz Co.....	Vinegar	85 20
103.	Thomas Moffat.....	Washing powder.....	44 80
104.	Wm. B. Burford.....	Stationery	45 93
105.	Indiana Refining Co.....	Oils	31 83
106.	The E. C. Dolmetsch Co.....	Spectacles	30 00
107.	George Hitz & Co.....	Apples, etc.....	84 50
108.	James L. Keach.....	Lemons and cranberries.....	89 00
109.	Chas. D. Pearson & Co.....	Queensware, etc.....	62 80
110.	Kipp Bros. & Co.....	Dolls	54 00
111.	Tutewiler & Son.....	Undertaking	14 00
112.	Nichols Candy Co.....	Popcorn	12 08
113.	Atlas Paper Co.....	Toilet paper.....	9 30
114.	Rhoads & Fillman.....	Blankets	7 20
115.	Star Publishing Co.....	Legal notice.....	96
116.	The Indianapolis News.....	Legal notice.....	3 57
117.	Wm. H. Armstrong Co.....	Medical supplies.....	1 68
118.	Geo. J. Mayer.....	Rubber letters.....	2 08
119.	D. H. Robey.....	Horse shoeing.....	6 60
120.	Simon P. Neidigh.....	Street car fares.....	10 00
121.	D. H. Davis.....	Salary and expense.....	101 50

EXHIBIT No. 2—Continued.

<i>No.</i>	<i>Payable To.</i>	<i>What For.</i>	<i>Amount.</i>
122.	A. Heimberger.....	Salary and expense.....	\$120 00
123.	Hugh Th. Miller.....	Salary and expense.....	83 45
124.	Walter S. Chambers.....	Salary and expense.....	90 00
125.	Acme-Evans Co.....	Flour	705 70
126.	J. C. Perry & Co.....	Groceries, etc.....	1,369 50
127.	D. D. Mills.....	Milk	813 75
128.	Kirkhoff Bros. & Co.....	Steam heating plant.....	785 00
129.	Wm. Rouse & Son.....	Oats, corn and meal.....	171 43
130.	Hibben, Hollweg & Co.....	Blankets	223 60
131.	National Biscuit Co.....	Crackers	185 48
132.	Adolf Scherrer.....	Architect fees.....	23 55
133.	The Fleischmann Co.....	Yeast	15 00
134.	Indianapolis Poultry Co.....	Chickens	20 23
135.	Fidelity & Casualty Co.....	Boiler insurance.....	60 00
136.	W. S. Johnson.....	Hauling freight.....	4 00
137.	Western Union Telegraph Co.....	Telegrams	1 25
138.	Indianapolis Telephone Co.....	Telephone service.....	22 60
139.	Central Union Telephone Co.....	Telephone service.....	59 83
140.	Indiana Fuel Supply Co.....	Coal	5,587 62
141.	Geo. F. Edenharter, Supt.....	Expense bills, weekly pay....	1,154 46
142.	Geo. F. Edenharter, Supt.....	Main payroll.....	9 460 38
143.	Wm. B. Burford.....	Stationery	467 56
144.	National Biscuit Co.....	Crackers	146 55
145.	Indianapolis Water Co.....	Water	411 41
146.	Indiana Reformatory.....	Brooms	171 50
147.	U. S. Laundry Soap & Supply Co..	Chip soap.....	164 40
148.	Geo. D. Hardin.....	Hay and straw.....	265 42
149.	Kingan & Co.....	Butterine	445 32
150.	Kipp-Link Phonograph Co.....	Phonograph and records....	145 00
151.	Chas. D. Pearson & Co.....	Queensware	197 48
152.	D. D. Mills.....	Milk	813 75
153.	George Hitz & Co.....	Potatoes	290 15
154.	George A. Nicholson.....	Oysters	339 25
155.	Swift & Co.....	Eggs, lard, etc.....	730 66
156.	C. H. McDowell.....	Services as chaplain.....	25 00
157.	Michigan Lumber Co.....	Lumber	57 00
158.	A. Keifer Drug Co.....	Brushes, soda ash, etc.....	58 15
159.	The Indianapolis Gas Co.....	Gas	20 46
160.	Wm. Rouse & Son.....	Corn meal.....	18 75
161.	M. C. Hunt.....	Sal soda.....	23 95
162.	Wm. H. Armstrong Co.....	Medical supplies.....	42 95
163.	Southern Seed Co.....	Flower pots.....	66 75
164.	The Albert Gall Co.....	Carpets	84 37
165.	The Indianapolis Poultry Co.....	Dressed poultry.....	45 80
166.	Fertig & Kevers.....	Tin signs.....	3 00
167.	Atlas Paper Co.....	Toilet paper.....	4 65
168.	Singer Sewing Machine Co.....	Machine needles.....	2 40
169.	J. L. Keach.....	Lemons	6 50
170.	Star Publishing Co.....	Legal notice.....	1 44
171.	The Indianapolis News.....	Legal notice.....	1 80
172.	Indian Refining Co.....	Oil	1 87
173.	Techentin & Freiberg.....	Harness repairs, etc.....	3 15
174.	The Fleischmann Co.....	Yeast	16 25
175.	F. E. Janes Coal & Grain Co.....	Oats	37 75
176.	Hibben & Hollweg Co.....	Blankets and damask.....	899 63
177.	Havens & Geddes Co.....	Damask, crash, etc.....	521 67
178.	Daniel Stewart Co.....	Drugs	292 02
179.	Morris & Co.....	Beef, pork, hams, etc.....	3,494 50

EXHIBIT No. 2—Continued.

No.	Payable To.	What For.	Amount.
180.	Indiana Fuel Supply Co.....	Coal	\$4,513 60
181.	J. C. Perry & Co.....	Groceries	1,085 25
182.	V. Bachman.....	Flour	639 81
183.	M. O'Connor & Co.....	Evap. peaches, apples, etc...	282 53
184.	Weber Drug Co.....	Vaccine lymph, etc.....	33 20
185.	Standard Oil Co.....	Oils, etc.....	27 28
186.	Western Union Telegraph Co.....	Telegrams	1 04
187.	People's Coal & Cement Co.....	Coke	6 00
188.	W. S. Johnson.....	Hauling freight.....	4 00
189.	Geo. F. Edenharter, Supt.....	Weekly pay, sundry expense, etc.	957 52
190.	Geo. F. Edenharter, Supt.....	Main payroll.....	9,439 36
191.	Indiana Fuel Supply Co.....	Coal	3,518 14
192.	Swift & Co.....	Beef, pork and lard.....	2,309 19
193.	Ford A. Smith.....	1 pair horses.....	475 00
194.	Evan H. Peid.....	1 pair horses.....	450 00
195.	Indianapolis Water Co.....	Water	195 08
196.	U. S. Laundry Soap & Supply Co..	Chipped soap.....	159 90
197.	John B. Bright & Son.....	Coffee	676 46
198.	Wm. H. Armstrong Co.....	Medical supplies.....	209 20
199.	Armour & Co.....	Butterine	637 00
200.	George Hitz & Co.....	Potatoes, apples, etc.....	505 27
201.	J. C. Perry & Co.....	Tea, tobacco, etc.....	388 90
202.	M. O'Connor & Co.....	Groceries	969 07
203.	Hibben, Hollweg & Co.....	Blankets and damask.....	826 06
204.	J. R. Budd Co.....	Eggs	226 26
205.	Acme-Evans Co.....	Flour and meal.....	216 68
206.	Century Biscuit Co.....	Crackers	133 14
207.	Morris & Co.....	Hams and bacon.....	727 61
208.	Wm. Rouse & Son.....	Flour	346 18
209.	D. D. Mills.....	Milk	735 30
210.	Chas. D. Pearson & Co.....	Queensware	147 48
211.	A. Keifer Drug Co.....	Drugs	136 50
212.	C. H. McDowell.....	Services as chaplain.....	15 00
213.	Techentin & Freiberg.....	Harness	72 25
214.	M. C. Hunt.....	Washing soda.....	63 70
215.	The Indianapolis Gas Co.....	Gas	21 96
216.	Sander & Recker Furniture Co....	Commodes	13 00
217.	Indianapolis Poultry Co.....	Dressed chickens.....	34 83
218.	Daniel Stewart Co.....	Adhesive plasters.....	15 30
219.	Red Star Compressed Yeast Co....	Yeast	14 25
220.	Havens & Geddes Co.....	Combs, etc.....	11 00
221.	The J. V. Zartman Oil Co.....	Oil	20 25
222.	Atlas Paper Co.....	Toilet paper.....	4 65
223.	Kipp-Link Phonograph Co.....	Records	2 50
224.	J. L. Keach.....	Lemons	7 30
225.	Southern Seed Co.....	Labels, etc.....	4 50
226.	The Indianapolis News.....	Legal notice.....	1 80
227.	Star Publishing Co.....	Legal notice.....	1 44
228.	Western Union Telegraph Co.....	Telegrams	1 08
229.	W. S. Johnson.....	Freight and drayage.....	2 88
230.	Wm. B. Burford.....	Stationery	107 65
231.	Geo. F. Edenharter, Supt.....	Expense bills, weekly pay, etc.	837 89
232.	Geo. F. Edenharter, Supt.....	Main payroll.....	9,359 06
233.	A. Kiefer Drug Co.....	Drugs	222 29
234.	Indianapolis Water Co.....	Water	242 22
235.	Kingan & Co., Ltd.....	Butterine	423 00
236.	Wm. B. Burford.....	Stationery	624 00

EXHIBIT No. 2—Continued.

<i>No.</i>	<i>Payable To.</i>	<i>What For.</i>	<i>Amount.</i>
237.	The August M. Kuhn Co.....	Evaporated fruit, etc.....	\$300 84
238.	Chas. D. Pearson & Co.....	Queensware, etc.....	110 64
239.	M. C. Hunt.....	Chipped soap and sal soda...	188 95
240.	John B. Bright & Son.....	Coffee	492 23
241.	L. A. Greiner & Son.....	Veterinary services.....	22 00
242.	The Indianapolis Gas Co.....	Gas	21 42
243.	Vondersaar & Co.....	Apples	14 00
244.	Wm. Rouse & Son.....	Meal and bran.....	24 30
245.	Kipp Bros. Co.....	Brushes	18 00
246.	The J. V. Zartman Oil Co.....	Oil	19 13
247.	Pear Street Produce Co.....	Dressed chickens.....	36 00
248.	Joseph Gardner.....	Granite buckets.....	90 00
249.	Thomas Moffat.....	Washing soda.....	33 60
250.	Standard Oil Co.....	Oil and gasoline.....	15 11
251.	Weber Drug Co.....	Vaccine lymph.....	6 00
252.	Atlas Paper Co.....	Toilet paper.....	4 65
253.	The Indianapolis News.....	Legal notice.....	1 83
254.	W. S. Johnson.....	Freight and drayage.....	2 45
255.	Century Biscuit Co.....	Crackers	159 32
256.	Havens & Geddes Co.....	Damask, crash, etc.....	507 56
257.	D. D. Mills.....	Milk	813 75
258.	Rev. W. S. Hendrickson.....	Services as chaplain.....	20 00
259.	Simon P. Neidigh.....	Street car fares.....	10 00
260.	D. H. Davis.....	Salary and expense.....	98 00
261.	Hugh Th. Miller.....	Salary and expense.....	83 25
262.	Walter S. Chambers.....	Salary and expense.....	93 00
263.	A. Heimberger.....	Salary and expense.....	120 00
264.	Swift & Co.....	Beef, hams, pork, lard, etc...	4,557 76
265.	M. O'Connor & Co.....	Groceries, tobacco, etc.....	1,029 05
266.	Southern Seed Co.....	Garden seed, etc.....	54 68
267.	Hibben, Hollweg & Co.....	Blankets, damask, etc.....	978 01
268.	George Hitz & Co.....	Potatoes and fruit.....	300 96
269.	Barrett Mfg. Co.....	Ammonia	36 85
270.	Frank G. Kamp, Jr.....	Fish and oysters.....	4 30
271.	Harmon & Hall.....	Plow shares, etc.....	5 70
272.	Star Publishing Co.....	Legal notice.....	1 44
273.	Kipp-Link Phonograph Co.....	Records	2 50
274.	Western Union Telegraph Co.....	Telegrams	1 81
275.	American District Telegraph Co...	Messenger service.....	90
276.	Red Star Compressed Yeast Co....	Yeast	15 25
277.	Central Union Telephone Co.....	Telephone service.....	60 23
278.	Indianapolis Coal Co.....	Coke	6 00
279.	Acme-Evans Co.....	Flour	594 25
280.	Indiana Fuel Supply Co.....	Coal	4,847 50
281.	Geo. F. Edenharter, Supt.....	Expense bills, weekly pay, etc.	942 61
282.	Geo. F. Edenharter, Supt.....	Main payroll.....	9,430 58
283.	Swift & Co.....	Beef, pork, eggs, etc.....	2,952 51
284.	Kingan & Co., Ltd.....	Butterine	460 00
285.	John B. Bright & Son.....	Coffee	345 90
286.	J. C. Perry & Co.....	Soap	250 00
287.	M. C. Hunt.....	Sal soda and soap.....	233 80
288.	The "Sanitas" Co.....	Soap	170 00
289.	Indianapolis Water Co.....	Water	217 68
290.	Century Biscuit Co.....	Crackers	128 32
291.	Morris & Co.....	Hams and lard.....	985 15
292.	V. Bachman.....	Flour	176 00
293.	Acme-Evans Co.....	Flour and meal.....	471 46
294.	Chas. D. Pearson & Co.....	Queensware	78 46

EXHIBIT No. 2—Continued.

<i>No.</i>	<i>Payable To.</i>	<i>What For.</i>	<i>Amount.</i>
295.	The August M. Kuhn Co.....	Canned corn.....	\$40 00
296.	The Canby, Ach & Canby Co.....	Tea	98 70
297.	Thomas Moffat.....	Washing soda.....	44 80
298.	Kipp Bros. Co.....	Playing cards and flags.....	49 00
299.	H. J. Heinz Co.....	Vinegar	87 60
300.	Belt Elevator & Feed Co.....	Oats	37 95
301.	The Fulton-Evans Co.....	Book case.....	59 35
302.	Wm. H. Armstrong Co.....	Medical supplies.....	10 50
303.	The J. V. Zartman Oil Co.....	Oils, etc.....	32 47
304.	The Indianapolis News.....	Legal notices.....	16 14
305.	Star Publishing Co.....	Legal notices.....	12 42
306.	Atlas Paper Co.....	Toilet paper.....	9 30
307.	Harmon & Hall.....	Plow bolts.....	1 00
308.	Southern Seed Co.....	Seed, plow points, etc.....	4 75
309.	James L. Keach.....	Lemons	9 00
310.	M. O'Connor & Co.....	Groceries, etc.....	1,109 79
311.	Indiana Fuel Supply Co.....	Coal	2,722 00
312.	A. Kiefer Drug Co.....	Drugs	102 73
313.	Hibben, Hollweg & Co.....	Muslin, blankets, etc.....	829 44
314.	The Hunter Brush Mfg. Co.....	Brooms	185 00
315.	L. E. Morrison & Co.....	Rubber blankets, etc.....	236 48
316.	George Hitz & Co.....	Potatoes and oranges.....	560 25
317.	D. D. Mills.....	Milk	787 35
318.	Wm. B. Burford.....	Stationery	41 91
319.	Indianapolis Poultry Co.....	Dressed hens.....	56 16
320.	Wm. A. Hendrickson.....	Services as chaplain.....	25 00
321.	The Indianapolis Gas Co.....	Gas	23 04
322.	Tutewiler & Son.....	Undertaking	14 00
323.	Red Star Comp. Yeast Co.....	Yeast	15 63
324.	Indianapolis Telephone Co.....	Telephone service.....	20 70
325.	Central Union Telephone Co.....	Telephone service.....	2 30
326.	Western Union Telegraph Co.....	Telegrams	2 52
327.	W. S. Johnson.....	Hauling freight.....	3 00
328.	Weber Drug Co.....	Drugs	2 72
329.	D. H. Robey.....	Horse shoeing	2 55
330.	George F. Edenharter, Supt.....	Weekly pay, sundry expense, etc.....	835 67
331.	George F. Edenharter, Supt.....	Main payroll	9,437 26
332.	A. Kiefer Drug Co.....	Drugs, etc.....	132 85
333.	Acme-Evans Co.....	Flour	224 50
334.	The Ohio Rake Co.....	Lawn swings.....	156 00
335.	E. A. Smith.....	Chipped soap.....	259 00
336.	Wm. C. Fischer & Co.....	Lard and ham.....	912 33
337.	Century Biscuit Co.....	Crackers	125 07
338.	The Geiger-Tinney Co.....	Coffee	336 62
339.	J. C. Perry & Co.....	Evap. peaches, canned corn..	250 00
340.	V. Bachman.....	Flour	460 80
341.	Indianapolis Water Co.....	Water	331 32
342.	Wm. B. Burford.....	Stationery and printing.....	194 76
343.	Kingan & Co., Ltd.....	Beef	1,864 61
344.	Hibben, Hollweg & Co.....	Napkins	41 85
345.	W. A. Hendrickson.....	Services as chaplain.....	20 00
346.	George Hitz & Co.....	Potatoes and fruit.....	704 97
347.	Havens & Geddes Co.....	Serim, etc.....	166 96
348.	Indianapolis Gas Co.....	Gas	25 38
349.	Indianapolis Poultry Co.....	Dressed chickens.....	57 85
350.	Consumers' Ice Co.....	Ice	20 40
351.	Fred H. Helms.....	Turbine hose.....	19 00

EXHIBIT No. 2—Continued.

No.	Payable To.	What For.	Amount.
352.	The J. V. Zartman Oil Co.....	Oils	\$19 89
353.	Belt Elevator & Feed Co.....	Corn	37 73
354.	M. C. Hunt.....	Sal soda	26 63
355.	Chas. D. Pearson & Co.....	Queensware, etc.....	80 00
356.	Indiana National Bank.....	Printed checks.....	20 25
357.	Barrett Mfg. Co.....	Ammonia	36 55
358.	The G. H. Hammond Co.....	Bacon	20 60
359.	Thomas Moffat.....	Washing powder.....	33 60
360.	Wm. Rouse & Son.....	Meal	19 20
361.	Standard Oil Co.....	Gasoline	2 00
362.	Star Publishing Co.....	Legal notices.....	3 78
363.	The Indianapolis News.....	Legal notices.....	4 23
364.	Kipp-Link Phonograph Co.....	Records, etc.....	2 75
365.	Weber Drug Co.....	Vaccine, lymph, etc.....	6 90
366.	Frank G. Kamps, Jr.....	Fresh fish.....	4 88
367.	D. D. Mills.....	Milk	811 65
368.	Swift & Co.....	Eggs, butterine, etc.....	1,543 71
369.	Indiana Fuel Supply Co.....	Coal	1,850 62
370.	M. O'Connor & Co.....	Groceries	1,312 03
371.	McCray Refrigerator Co.....	Refrigerator	260 00
372.	Wm. H. Armstrong Co.....	Medical supplies.....	37 04
373.	Vonnegut Hardware Co.....	Brushes, etc.....	43 06
374.	Atlas Paper Co.....	Toilet paper	4 65
375.	Southern Seed Co.....	Slug shot, etc.....	1 10
376.	Techentin & Freiberg.....	Sweat pads, etc.....	1 90
377.	Western Union Telegraph Co.....	Telegrams	4 57
378.	Tutewiler & Son.....	Undertaking	7 00
379.	C. H. & D. Ry. Co.....	Freight charges.....	12 97
380.	W. S. Johnson.....	Plowing, etc.....	12 00
381.	Red Star Comp. Yeast Co.....	Yeast	15 13
382.	George D. Hardin.....	Hay	85 64
383.	American District Telegraph Co...	Messenger service.....	1 50
384.	Central Union Telephone Co.....	Telephone tolls.....	13 85
385.	Geo. F. Edenharter, Supt.....	Expense bills, weekly pay, etc.	870 99
386.	Geo. F. Edenharter, Supt.....	Cash for main payroll.....	9,325 36
387.	Swift & Co.....	Beef, pork and veal.....	2,396 95
388.	Indianapolis Water Co.....	Water	275 40
389.	Acme-Evans Co.....	Flour	229 50
390.	John B. Bright & Son.....	Tea and coffee.....	519 53
391.	Dearborn Drug & Chemical Co.....	Boiler compound.....	101 36
392.	Vonnegut Hardware Co.....	Lawn mowers, feather dust- ers, etc.....	134 98
393.	Indianapolis Poultry Co.....	Eggs	221 25
394.	A. Kiefer Drug Co.....	Drugs	170 90
395.	V. Bachman.....	Flour	525 00
396.	Pettis Dry Goods Co.....	Window shades.....	184 33
397.	Belt Elevator & Feed Co.....	Oats	39 00
398.	Thomas Moffat.....	Washing powder.....	33 60
399.	Francis Bergman.....	Sal soda.....	28 27
400.	Hugh Th. Miller.....	Salary and expense.....	84 25
401.	W. A. Hendrickson.....	Services as chaplain.....	20 00
402.	Simon P. Neidigh.....	Street car fares.....	10 00
403.	The Indianapolis Gas Co.....	Gas	22 80
404.	Standard Oil Co.....	Gasoline	1 50
405.	The Indianapolis News.....	Legal notice.....	1 83
406.	Star Publishing Co.....	Legal notice.....	1 44
407.	Frank G. Kamps, Jr.....	Fresh fish.....	1 65
408.	Atlas Paper Co.....	Toilet paper.....	13 95

EXHIBIT No. 2—Continued.

No.	Payable To.	What For.	Amount.
409.	Century Biscuit Co.	Crackers	\$149 99
410.	W. C. Fischer & Co.	Hams and bacon	811 62
411.	Indiana Fuel Supply Co.	Coal	1,229 97
412.	Wm. Rouse & Son.	Corn meal	20 00
413.	D. H. Davis.	Salary and expense	102 50
414.	Walter S. Chambers.	Salary and expense	93 00
415.	A. Heimberger.	Salary and expense	110 00
416.	D. D. Mills.	Fresh milk	788 70
417.	American Tent & Awning Co.	Hanging awnings, etc.	27 00
418.	M. C. Hunt.	Shredded soap	222 37
419.	Kipp-Link Phonograph Co.	Phonograph records	3 50
420.	Tutewiler & Son.	Undertaking	7 00
421.	L. A. Greiner & Son.	Veterinary services	10 00
422.	Red Star Comp. Yeast Co.	Yeast	14 75
423.	Singer Sewing Machine Co.	Sewing machine and needles	31 50
424.	Chas. D. Pearson & Co.	Queensware	155 10
425.	Hibben, Hollweg & Co.	Muslin, crash, etc.	346 18
426.	George Hitz & Co.	Potatoes and fruits	469 07
427.	Kingan & Co. Ltd.	Butterine	514 80
428.	M. O'Connor & Co.	Groceries, etc.	1,441 79
429.	Wm. B. Burford.	Stationery and printing	1,026 39
430.	Geo. F. Edenharter, supt.	Expense bills, weekly pay, etc.	781 17
431.	Geo. F. Edenharter, supt.	Cash for main payroll	9,600 73
432.	Techentin & Freiberg.	Harness repairs	7 90
433.	The H. Lieber Co.	Photographers' supplies	7 55
434.	M. O'Connor & Co.	Groceries, etc.	1,367 92
435.	J. L. Keach.	Potatoes and fruit	1,404 17
436.	Morris & Co.	Beef	2,044 07
437.	Indiana Fuel Supply Co.	Coal	1,717 61
438.	A. Kiefer Drug Co.	Drugs	196 03
439.	Indianapolis Water Co.	Water	357 75
440.	Chas. D. Pearson & Co.	Queensware, etc.	116 20
441.	Taylor Belting Co.	Fire hose	548 62
442.	Wm. Rouse & Son.	Flour and meal	507 50
443.	Indianapolis Poultry Co.	Eggs	241 20
444.	Enterprise Foundry & Fence Co.	New iron fence	855 51
445.	Acme-Evans Co.	Flour	257 95
446.	Swift & Co.	Bacon, lard and butterine	885 74
447.	Belt Elevator and Feed Co.	Oats and corn	107 31
448.	Indiana Reformatory.	Brooms	156 50
449.	Century Biscuit Co.	Crackers	106 98
450.	John B. Bright & Son.	Coffee	574 46
451.	W. C. Fischer & Co.	Hams	700 63
452.	D. D. Mills.	Milk	815 40
453.	Hibben, Hollweg & Co.	Muslin, crash, etc.	527 43
454.	Wm. B. Burford.	Stationery	266 30
455.	Central Union Telephone Co.	Telephone service	61 43
456.	W. A. Hendrickson.	Services as chaplain	25 00
457.	L. A. Greiner & Son.	Veterinary services	21 50
458.	Tutewiler & Son.	Undertaking	14 00
459.	Indianapolis Telephone Co.	Telephone service	20 00
460.	Sander & Recker Furniture Co.	Settees	84 74
461.	The Indianapolis Gas Co.	Gas	21 84
462.	M. C. Hunt.	Sol soda	37 32
463.	Standard Oil Co.	Oils, etc.	24 22
464.	Kipp Bros. Co.	Flags and bunting	21 05
465.	Thomas Moffat.	Washing soda	44 80
466.	Kingan & Co. Ltd.	Veal	43 81

EXHIBIT No. 2—Continued.

No.	Payable To.	What For.	Amount.
467.	Red Star Comp. Yeast Co.....	Yeast	\$13 75
468.	W. S. Johnson.....	Freight and drayage.....	9 00
469.	The Indianapolis News.....	Legal notice.....	5 13
470.	Star Publishing Co.....	Legal notice.....	5 04
471.	D. H. Robey.....	Horse shoeing, etc.....	6 65
472.	Frank G. Kamps, Jr.....	Fresh fish.....	4 00
473.	Geo. J. Mayer.....	Rubber stamps.....	2 33
474.	Harmon & Hall.....	Plow shovels.....	2 00
475.	Western Union Telegraph Co.....	Telegrams	1 00
476.	Weber Drug Co.....	Drugs	80
477.	P. F. Glazier.....	Fire hose nozzles.....	50 00
478.	Wm. Robinson.....	Cutting grass, etc.....	182 50
479.	Geo. F. Edenharter, Supt.....	Expense bills, weekly pay, etc.	697 26
480.	Geo. F. Edenharter, Supt.....	Main payroll.....	9,744 06
481.	Kingan & Co., Ltd.....	Beef and butterine.....	2,811 26
482.	Swift & Co.....	Bacon, hams, lard, etc.....	1,556 10
483.	George Hitz & Co.....	Potatoes, etc.....	1,489 38
484.	D. D. Mills.....	Fresh milk	815 85
485.	M. C. Hunt.....	Shredded soap.....	212 16
486.	Indpls. Belting & Supply Co.....	Fire hose.....	248 00
487.	J. L. Keach.....	Melons, etc.....	182 00
488.	John B. Bright & Son.....	Coffee and tea.....	805 26
489.	The Albert Gall Co.....	Carpets	905 15
490.	Vonnegut Hardware Co.....	Motor paving machines, etc..	540 46
491.	M. O'Connor & Co.....	Evap. peaches, tobacco, etc..	493 60
492.	Indiana Fuel Supply Co.....	Coal	991 55
493.	Wm. Robinson.....	Grading and cutting trees...	183 25
494.	J. C. Perry & Co.....	Groceries	942 68
495.	A. Kiefer Drug Co.....	Drugs, etc.....	292 52
496.	The "Sanitas" Co., U. S. A.....	Chip soap, disinfecting liquid	240 18
497.	Havens & Geddes Co.....	Dry goods, etc.....	163 76
498.	Indpls. Electric Supply Co.....	Electric fans, etc.....	147 90
499.	Charles Bailey.....	Hay and corn.....	176 60
500.	Acme-Evans Co.....	Flour	491 40
501.	John O'Neill.....	Flour	249 70
502.	Indianapolis Water Co.....	Water	501 76
503.	Century Biscuit Co.....	Crackers	136 24
504.	Charles D. Pearson & Co.....	Queensware	74 63
505.	L. A. Greiner & Son.....	Veterinary services.....	23 00
506.	The Fleischmann Co.....	Yeast	15 00
507.	Standard Oil Co.....	Oils	20 31
508.	The Indianapolis Gas Co.....	Gas	23 04
509.	Techentin & Freiberg.....	Harness repairs, etc.....	22 50
510.	Harmon & Hall.....	Wagon bed, etc.....	18 10
511.	Barrett Mfg. Co.....	Ammonia	26 52
512.	West Disinfecting Co.....	Disinfecting liquid.....	60 00
513.	Wm. Rouse & Son.....	Corn meal.....	11 20
514.	F. E. Janes Coal & Grain Co....	Oats	52 06
515.	Francis Bergman.....	Sal soda.....	39 11
516.	Thomas Moffat.....	Washing soda.....	33 60
517.	Indiana Reformatory.....	Water coolers.....	41 00
518.	W. A. Hendrickson.....	Services as chaplain.....	20 00
519.	American District Telegraph Co..	Messenger service.....	1 10
520.	D. H. Robey.....	Horse shoeing, etc.....	2 15
521.	Kipp-Link Phonograph Co.....	Phonograph records.....	4 10
522.	Frank G. Kamps, Jr.....	Fresh fish.....	1 50
523.	Singer Sewing Machine Co.....	Needles, etc., for machines...	1 95
524.	The Indianapolis News.....	Legal notice.....	2 58

EXHIBIT No. 2—Continued.

<i>No.</i>	<i>Payable To.</i>	<i>What For.</i>	<i>Amount.</i>
525.	Tutewiler & Son.....	Undertaking	\$7 00
526.	Star Publishing Co.....	Legal notice.....	2 16
527.	Atlas Paper Co.....	Toilet paper.....	9 30
528.	W. S. Johnson.....	Freight and drayage.....	7 50
529.	Weber Drug Co.....	Medical supplies.....	2 60
530.	Geo. F. Edenharter, Supt.....	Expense bills, weekly pay, etc.	666 99
531.	Geo. F. Edenharter, Supt.....	Main payroll.....	9,735 46
532.	The Indianapolis Gas Co.....	Gas	17 70
533.	Standard Oil Co.....	Oils	18 38
534.	W. A. Hendrickson.....	Services as chaplain.....	20 00
535.	General Electric Co.....	Excess discount taken.....	2 70
536.	Wm. Rouse & Son.....	Flour	529 75
537.	Dugan-Johnson & Co.....	Surgical knives.....	4 95
538.	Indianapolis Telephone Co.....	Telephone service.....	20 90
539.	D. H. Robey.....	Horse shoeing.....	85
540.	The Proctor & Gamble Dist. Co....	Chip soap.....	171 52
541.	The H. Lieber Co.....	Seed plates, etc	10 65
542.	Pettis Dry Goods Co.....	Dry goods.....	1,342 21
543.	Warren Seed Co.....	Onion sets.....	7 00
544.	Southern Seed Co.....	Onion sets.....	7 00
545.	Indianapolis Water Co.....	Water	437 74
546.	L. A. Greiner & Son.....	Services as veterinary.....	5 00
547.	A. Kiefer Drug Co.....	Medical supplies.....	202 53
548.	John B. Bright & Son.....	Tea	214 62
549.	The John Van Range Co.....	Strainer cloth.....	20 00
550.	The Taylor Carpet Co.....	Rugs	77 40
551.	J. C. Perry & Co.....	Groceries	445 92
552.	Chas. D. Pearson & Co.....	Queensware	95 88
553.	Kipp Bros. Co.....	Police whistles, etc.....	17 75
554.	W. C. Fischer & Co.....	Lard	279 40
555.	Francis Bergman.....	Sal soda	42 89
556.	Belt Elevator & Feed Co.....	Meal	11 20
557.	Thomas Moffat.....	Washing soda.....	33 60
558.	Techentin & Freiberg.....	Harness	15 65
559.	Kingan & Co., Ltd.....	Beef	2,409 35
560.	V. Bachman.....	Flour	174 25
561.	Central Union Telephone Co.....	Telephone service.....	58 73
562.	The Geiger-Tinney Co.....	Coffee	470 44
563.	The National Laundry Mach. Co...	Electrolyzer	350 00
564.	A. Heimberger.....	Salary	75 00
565.	Walter S. Chambers.....	Salary and expense.....	90 00
566.	D. H. Davis.....	Salary and expense.....	107 50
567.	Barrett Mfg. Co.....	Ammonia	26 78
568.	Indiana Fuel Supply Co.....	Coal	2,338 44
569.	The Fleischmann Co.....	Yeast	11 00
570.	Frank G. Kamps, Jr.....	Fresh fish.....	3 00
571.	William Robinson.....	Grading, etc.....	73 20
572.	Indianapolis Poultry Co.....	Dressed poultry.....	44 55
573.	Simon P. Neidigh.....	Street car fares.....	10 00
574.	D. D. Mills.....	Fresh milk.....	788 10
575.	J. L. Keach.....	Potatoes and fruit.....	1,008 95
576.	George Hitz & Co.....	Lemons and peaches.....	172 40
577.	Hibben, Hollweg & Co.....	Ticking and quilts.....	106 21
578.	Armour & Co.....	Bacon and butterine.....	610 75
579.	Wm. B. Burford.....	Stationery	565 03
580.	National Biscuit Co.....	Crackers	109 35
581.	W. S. Johnson.....	Freight and drayage.....	6 34
582.	Swift & Co.....	Hams and eggs.....	1,141 71

EXHIBIT No. 2—Continued.

No.	Payable To.	What For.	Amount.
583.	The Indianapolis News.....	Legal notice.....	\$1 80
584.	M. O'Connor.....	Groceries	983 97
585.	Star Publishing Co.....	Legal notice.....	1 44
586.	Hugh Th. Miller.....	Salary	75 00
587.	F. H. Cheyne Electric Co.....	Lighting system for grounds.	1,991 50
588.	Adolf Scherrer.....	Architect's fees.....	59 74
589.	Geo. F. Edenharter, Supt.....	Expense bills, weekly pay, etc.	893 92
590.	Geo. F. Edenharter, Supt.....	Main payroll	9,716 78
Total			\$312,903 08
Less contingent voucher			2,000 00
			<u>\$310,903 08</u>

EXHIBIT No. 3.

*Vouchers Paid from the Repair Fund During the Fiscal Year Ending,
September 30, 1911.*

No.	Payable To.	What For.	Amount.
1.	Crane Company.....	Plumbing supplies, etc.....	\$142 18
2.	Joseph Gardner.....	Tinners' supplies.....	59 85
3.	The Sinker-Davis Co.....	Boiler repairs, etc.....	43 37
4.	Acme Carriage & Wagon Works....	Repairs, shoeing, etc.....	25 45
5.	Royse Electric Co.....	Electrical supplies.....	10 47
6.	P. W. Kennedy.....	Repair of elevator buckets...	36 00
7.	Vonnegut Hardware Co.....	Upholsterers' supplies, etc...	51 17
8.	Indpls. Belting & Supply Co.....	Wire-wound steam hose.....	20 00
9.	Phoenix Iron Works Co.....	Cross head, etc., for engine..	39 90
10.	Wm. H. Armstrong Co.....	Repairing knives, etc.....	2 25
11.	F. H. Langsenkamp.....	Repairing copper coil.....	5 80
12.	Geo. F. Edenharter, Supt.....	Repair payroll.....	418 00
13.	General Electric Co.....	Electric lamps, etc.....	74 32
14.	The Babcock & Wilcox Co.....	Boiler tubes.....	35 95
15.	Cryan Elevator Co.....	Repair of elevator.....	24 40
16.	The Sanborn Electric Co.....	Electrical supplies.....	23 50
17.	American Laundry Machinery Co..	Repairs for laundry machine.	32 40
18.	Vonnegut Hardware Co.....	Repair hardware.....	55 01
19.	Fertig & Kevers.....	Repainting sign.....	1 75
20.	The John Van Range Co.....	Repairs for range.....	2 04
21.	Wm. H. Armstrong Co.....	Repairing invalid chair.....	2 75
22.	F. H. Langsenkamp.....	Repair of copper coil.....	5 75
23.	Chas. McGarvey	Plastering, etc.....	103 81
24.	Joseph Gardner.....	Tinners' supplies, etc.....	133 00
25.	The Sinker-Davis Co.....	Boiler repairs, etc.....	33 20
26.	Acme Carriage & Wagon Works....	Repairs, shoeing, etc.....	32 05
27.	Crane Company.....	Plumbing supplies, etc.....	77 82
28.	Dr. Geo. F. Edenharter, Supt.....	Repair payroll.....	456 65
29.	Sargent Paint & Color Co.....	Paint brushes.....	103 90
30.	Balke & Krauss Co.....	Lumber	152 80
31.	A. Kiefer Drug Co.....	Oil and turpentine.....	93 05
32.	Royse Electric Co.....	Electrical supplies.....	16 46
33.	Henry Vogt Machine Co.....	Ice machine repairs.....	6 35
34.	The John Van Range Co.....	Repairs for range.....	2 50
35.	Sander & Recker Furniture Co....	Repairing desk.....	5 50
36.	Wm. A. Johnson & Son.....	Painting	150 60

EXHIBIT No. 3—Continued.

<i>No.</i>	<i>Payable To.</i>	<i>What For.</i>	<i>Amount.</i>
37.	Cryan Elevator Co.....	Repair of elevator.....	\$35 00
38.	Kirkhoff Bros. & Co.....	Steamfitting, etc.....	61 65
39.	Lilly & Stalnaker.....	Repair hardware, etc.....	38 15
40.	Acme Carriage & Wagon Works....	Repairs, shoeing, etc.....	47 03
41.	The Sinker-Davis Co.....	Repair of boilers, etc.....	187 00
42.	Geo. F. Edenharter, Supt.....	Repair payroll.....	460 00
43.	Kirkhoff Bros. & Co.....	Repair of water regulator....	33 60
44.	Hatfield Electric Co.....	Dry cells.....	4 08
45.	Lilly & Stalnaker.....	Padlocks.....	4 25
46.	Vonnegut Hardware Co.....	Binding cane, etc.....	36 60
47.	The Babcock & Wilcox Co.....	Boiler tubes and cleaners....	126 91
48.	Joseph Gardner.....	Tinners' supplies.....	109 35
49.	Henry Vogt Machine Co.....	Repairs for ice plant.....	4 55
50.	Indpls. Paint & Color Co.....	Turpentine.....	41 12
51.	Crane Company.....	Plumbing supplies, etc.....	173 95
52.	The Sinker-Davis Co.....	Boiler and pump repairs, etc.	181 30
53.	Chas. F. Wehking Co.....	Repairs on boilers.....	6 25
54.	Indianapolis Electric Supply Co...	Electrical supplies.....	18 25
55.	The John Van Range Co.....	Repairs for range.....	10 08
56.	Acme Carriage & Wagon Works....	Repairs, shoeing, etc.....	26 00
57.	Central Supply Co.....	Plumbing supplies, etc.....	314 31
58.	The Meier Electric Co.....	Rewinding armature, etc.....	46 10
59.	Geo. F. Edenharter, Supt.....	Repair payroll.....	460 00
60.	Dean Bros. Steam Pump Works....	Uniplex brine pump.....	68 00
61.	Crane Company.....	Plumbing supplies.....	64 55
62.	Carmen & Fryer.....	Repair of turbine.....	40 85
63.	General Electric Co.....	Electric lamps.....	136 10
64.	Joseph Gardner.....	Tinners' supplies.....	135 20
65.	Central Supply Co.....	Plumbing supplies.....	172 96
66.	Vonnegut Hardware Co.....	Hardware, etc.....	39 20
67.	Indianapolis Electric Co.....	Electrical supplies.....	11 68
68.	F. H. Langsenkamp.....	Repair of copper coil.....	6 15
69.	The Sinker-Davis Co.....	Repair of boiler, etc.....	58 50
70.	American Laundry Mach. Co.....	Laundry repairs.....	17 25
71.	Acme Carriage & Wagon Works....	Repairs, shoeing, etc.....	36 25
72.	Geo. F. Edenharter, Supt.....	Repair payroll.....	432 50
73.	Balke & Krauss Co.....	Cement.....	4 80
74.	Varney Electric Co.....	Electrical supplies.....	29 13
75.	American Laundry Mach. Co.....	Repairs for laundry machine.	48 17
76.	The Babcock & Wilcox Co.....	Turbine.....	35 00
77.	H. Kohnstamm Co.....	Repairs for mangle.....	112 80
78.	Crane Company.....	Packing, etc.....	100 56
79.	Albert Schiffing.....	Repairs for lawn mower....	11 50
80.	Acme Carriage & Wagon Works....	Repairs, shoeing, etc.....	9 00
81.	Vonnegut Hardware Co.....	Twine, sheepskins, etc.....	97 88
82.	The Sinker-Davis Co.....	Boiler repairs.....	17 40
83.	Geo. F. Edenharter, Supt.....	Repair payroll.....	415 00
84.	Crane Company.....	Iron pipe fittings, etc.....	203 02
85.	Henry Vogt Machine Co.....	Repairs for ice machine....	77 53
86.	Vonnegut Hardware Co.....	Pantasote.....	67 85
87.	Indianapolis Electric Supply Co...	Electrical supplies.....	34 21
88.	Balke & Krauss Co.....	Lime.....	50
89.	Joseph Gardner.....	Tinners' supplies.....	47 00
90.	Indpls. Belting & Supply Co.....	Belts, valves, etc.....	180 45
91.	The Sinker-Davis Co.....	Boiler repairs.....	47 70
92.	A. Kiefer Drug Co.....	Painters' supplies.....	108 00
93.	Lilly & Stalnaker.....	Repair hardware, etc.....	30 68
94.	Acme Carriage & Wagon Works....	Repairs, shoeing, etc.....	31 45

EXHIBIT No. 3—Continued.

No.	Payable To.	What For.	Amount
95.	L. S. Ayres & Co.	Repair of Duntley cleaner.	\$2 50
96.	Central Supply Co.	Plumbing supplies.	42 86
97.	American Laundry Mach. Co.	Repairs for laundry.	21 00
98.	Geo. F. Edenharter, Supt.	Repair payroll.	408 50
99.	F. J. Mack & Co.	Outside painting.	131 50
100.	Crane Company.	Iron pipe, nipples, etc.	42 38
101.	The Babcock & Wilcox Co.	Boiler tubes.	71 48
102.	Chas. Krauss & Sons.	Repair of pumps.	17 70
103.	Central Supply Co.	Plumbing supplies.	65 14
104.	The Albert Gall Co.	Papering, etc.	169 01
105.	F. H. Langsenkamp.	Repairing coffee urn.	3 35
106.	The A. Burdsal Co.	Paint, etc.	7 85
107.	Hide, Leather & Belting Co.	Cutting belt.	1 50
108.	John A. Schumacher Co.	Repairing swings, ceiling, etc.	100 93
109.	Lilly & Stalnaker.	Locks.	16 50
110.	Chas. F. Wehking Co.	Repairs at bake shop.	88 00
111.	Wm. A. Johnson & Son.	Painting at sick hospital.	450 00
112.	The Sinker-Davis Co.	Repairs of boilers, etc.	150 43
113.	Albert Schiffling.	Repair of lawn mowers.	8 50
114.	Chas. G. Grah.	Repair of shears and clippers.	3 15
115.	Remington Typewriter Co.	Repair of typewriter.	12 65
116.	Varney Electric Supply Co.	Electrical supplies.	62 37
117.	The A. Bruner Co.	Repair of sewer, etc.	15 00
118.	Acme Carriage & Wagon Works.	Repairs, shoeing, etc.	22 65
119.	Laakman & Godley.	Cement repair work, etc.	307 40
120.	The John A. Schumacher Co.	Floors in wards, etc.	1,095 08
121.	Adolf Scherrer.	Architect fees.	32 85
122.	Geo. F. Edenharter, Supt.	Repair payroll.	439 65
123.	Albert Schiffling.	Repair of lawn mower.	3 00
124.	Indianapolis Coal Co.	Cement.	4 80
125.	Lilly & Stalnaker.	Belt fasteners.	12 50
126.	H. W. Johns-Manville Co.	Packing.	49 80
127.	Carman & Fryer.	Repair of electric fans.	16 00
128.	Chas. F. Wehking Co.	Repairs on boilers.	10 80
129.	Central Supply Co.	Plumbing supplies.	41 63
130.	F. E. Gates Marble & Tile Co.	Repairing tile floor.	49 18
131.	Joseph Gardner.	Repairing ice cans.	40 20
132.	W. A. Johnson & Son.	Painting swings, etc.	159 00
133.	Acme Carriage & Wagon Works.	Repairs, shoeing, etc.	12 10
134.	The A. Bruner Co.	Repairing sewer.	10 00
135.	The Sinker-Davis Co.	Boiler repairs, etc.	21 40
136.	Crane Company.	Plumbing supplies.	176 00
137.	John A. Schumacher Co.	Repairing benches, etc.	436 10
138.	Geo. F. Edenharter, Supt.	Cash for repair payroll.	422 00
139.	Joseph Gardner.	Tinners' supplies, etc.	168 50
140.	A. Kiefer Drug Co.	Lead, oil, etc.	184 80
141.	The Westinghouse Mach. Co.	Repairs for stokers.	27 50
142.	Balke & Krauss Co.	Fire brick, etc.	46 05
143.	The Meier Electric & Elevator Co.	Repair of elevator.	20 80
144.	Studebaker Bros. Co.	Repair of station wagon.	36 50
145.	Indianapolis Electric Supply Co.	Electrical supplies.	34 45
146.	Acme Carriage & Wagon Works.	Repairs, shoeing, etc.	33 50
147.	The Sinker-Davis Co.	Repairs on boilers.	31 95
148.	Vonnegut Hardware Co.	Repair hardware.	64 24
149.	Kirkhoff Bros. & Co.	Steamfitting, etc.	24 70
150.	The A. Burdsal Co.	Asphalt.	3 60
151.	The John Van Range Co.	Repairs for range.	7 86
152.	Joseph Gardner.	Repairs of roofs, etc.	3,066 00

EXHIBIT No. 3—Continued.

<i>No.</i>	<i>Payable To.</i>	<i>What For.</i>	<i>Amount.</i>
153.	Crane Company.....	Plumbing supplies.....	\$109 11
154.	Chas. Wehking & Co.....	Repair of boilers.....	12 15
155.	Geo. F. Edenharter, Supt.....	Repair payroll.....	550 50
156.	Central Supply Co.....	Plumbing supplies.....	108 26
157.	Joseph Gardner.....	Tinners' supplies.....	75 75
158.	The Babcock & Wilcox Co.....	Boiler tubes.....	179 12
159.	Michigan Lumber Co.....	Lumber	221 60
160.	The John Van Range Co.....	Repairs for range.....	4 50
161.	Remington Typewriter Co.....	Repair of typewriter, etc....	5 60
162.	J. H. Ballman & Sons.....	Repainting various buildings.	1,107 00
163.	Crane Company.....	Plumbing supplies.....	7 15
164.	Fairbanks, Morse & Co.....	Testing wagon scales.....	3 30
165.	Acme Carriage & Wagon Works....	Repairs, shoeing, etc.....	32 25
166.	General Electric Co.....	Repairs for laundry, etc....	54 43
167.	Joseph Gardner.....	Repairs on roofs, etc.....	95 95
168.	Kirkhoff Bros. & Co.....	Flushometers	38 80
169.	The Sinker-Davis Co.....	Repair of pumps, etc.....	152 00
170.	Geo. F. Edenharter, Supt.....	Repair payroll.....	493 65
171.	H. Kohnstamm & Co.....	Repairs for laundry.....	108 40
172.	The Rockwood Mfg. Co.....	Fibre pulleys	6 06
173.	Indianapolis Electric Supply Co...	Electrical supplies.....	11 69
174.	Joseph Gardner.....	Tinners' supplies.....	17 50
175.	Chas. G. Grah.....	Grinding shears.....	40
176.	Wm. H. Armstrong Co.....	Repair of surgical instrument	2 60
177.	Indianapolis Coal Co.....	Cement	4 65
178.	Vonnegut Hardware Co.....	Files, chair cane, etc.....	55 76
179.	Wm. Ehrich.....	Repair of ranges.....	444 79
180.	The Sinker-Davis Co.....	Repair of boilers and pump..	116 72
181.	Indpls. Paint & Color Co.....	Lead, turpentine, etc.....	138 80
182.	Indpls. Belting & Supply Co.....	Leather belt.....	19 95
183.	Studebaker Bros. & Co.....	Repair of carriage.....	55 00
184.	Acme Carriage & Wagon Works....	Repairs, shoeing, etc.....	11 65
185.	Kirkhoff Bros. & Co.....	Steam fitting.....	345 20
186.	Fred Goepper.....	Lime, mortar, etc.....	50 00
187.	Charles Krauss & Sons.....	Cleaning and drilling wells..	798 68
188.	Edward Roche.....	Plastering	114 07
189.	Albert Patton.....	Plastering	99 83
190.	Walter Boyer.....	Helper for plasterers.....	68 43
191.	Crane Company.....	Iron pipe, nipples, etc.....	167 99
192.	The Acme Foundry Co.....	Fuel plates.....	101 96
193.	Geo. F. Edenharter, Supt.....	Repair payroll.....	627 45
Total			\$23,457 97

EXHIBIT No. 4.

*Vouchers Paid from the Clothing Fund During the Fiscal Year Ending
September 30, 1911.*

No.	Payable To.	What For.	Amount.
1.	Havens & Geddes Co.	Dry goods, etc.	\$468 60
2.	Hibben, Hollweg & Co.	Ladies' vests and hose.	235 46
3.	L. Strauss & Co.	Men's suits.	300 00
4.	Indiana Reformatory.	Shoes	452 00
5.	Peter Nutz.	Mending shoes.	6 90
6.	George F. Edenharter, Supt.	Clothing payroll.	188 20
7.	L. Strauss & Co.	Men's suits.	600 00
8.	Hibben, Hollweg & Co.	Hose, gloves, etc.	310 89
9.	Havens & Geddes Co.	Pearl buttons.	5 50
10.	Peter Nutz.	Mending shoes.	19 65
11.	Indiana Reformatory.	Shoes	224 50
12.	Dr. Geo. F. Edenharter, Supt.	Clothing payroll.	191 75
13.	Indiana Reformatory.	Shoes and clothing.	449 50
14.	Havens & Geddes Co.	Canton flannel, etc.	212 95
15.	Hibben, Hollweg & Co.	Flannel hose, etc.	308 40
16.	Peter Nutz.	Mending shoes.	15 35
17.	Geo. F. Edenharter, Supt.	Clothing payroll.	194 00
18.	L. Strauss & Co.	Men's suits.	300 00
19.	The American Tailors & Clothiers.	Men's trousers.	257 50
20.	Indiana Reformatory.	Women's shoes.	149 00
21.	Hibben, Hollweg & Co.	Vests, jeans, etc.	524 57
22.	Havens & Geddes Co.	Canton flannel, etc.	251 20
23.	Geo. F. Edenharter, Supt.	Clothing payroll.	193 70
24.	Peter Nutz.	Mending shoes.	11 10
25.	Havens & Geddes Co.	Muslin sheets, etc.	365 15
26.	Geo. F. Edenharter, Supt.	Clothing payroll.	194 00
27.	Simon Pink.	Ladies' shoes.	3 00
28.	Havens & Geddes Co.	Buttons, etc.	33 60
29.	Hibben, Hollweg & Co.	Muslin prints, etc.	332 20
30.	Peter Nutz.	Mending shoes.	30 55
31.	Geo. F. Edenharter, Supt.	Clothing payroll.	192 25
32.	L. Strauss & Co.	Suits and trousers.	625 00
33.	Havens & Geddes Co.	Muslin, calico, etc.	419 31
34.	Hibben, Hollweg & Co.	Collars, ties, etc.	63 29
35.	Peter Nutz.	Mending shoes.	31 25
36.	Nathan Plaut & Son.	Shoes	375 00
37.	Geo. F. Edenharter, Supt.	Clothing payroll.	169 20
38.	C. W. Leffer Hat Co.	Straw hats.	36 00
39.	Havens & Geddes Co.	Muslin, flannel, etc.	198 49
40.	Nathan Plaut & Son.	Shoes	300 00
41.	Geo. F. Edenharter, Supt.	Clothing payroll.	203 70
42.	J. A. Ehrensperger.	Shoes	2 00
43.	Indiana Reformatory.	Shoes	299 00
44.	Havens & Geddes Co.	Hose, calico, etc.	212 89
45.	Peter Nutz.	Mending shoes.	24 80
46.	Geo. F. Edenharter, Supt.	Clothing payroll.	215 70
47.	Indiana Reformatory.	Men's suits.	611 00
48.	Havens & Geddes Co.	Suspenders, etc.	42 60
49.	Hibben, Hollweg & Co.	Muslin, half hose, etc.	261 03
50.	Peter Nutz.	Mending shoes.	7 00
51.	Geo. F. Edenharter, Supt.	Clothing payroll.	200 85

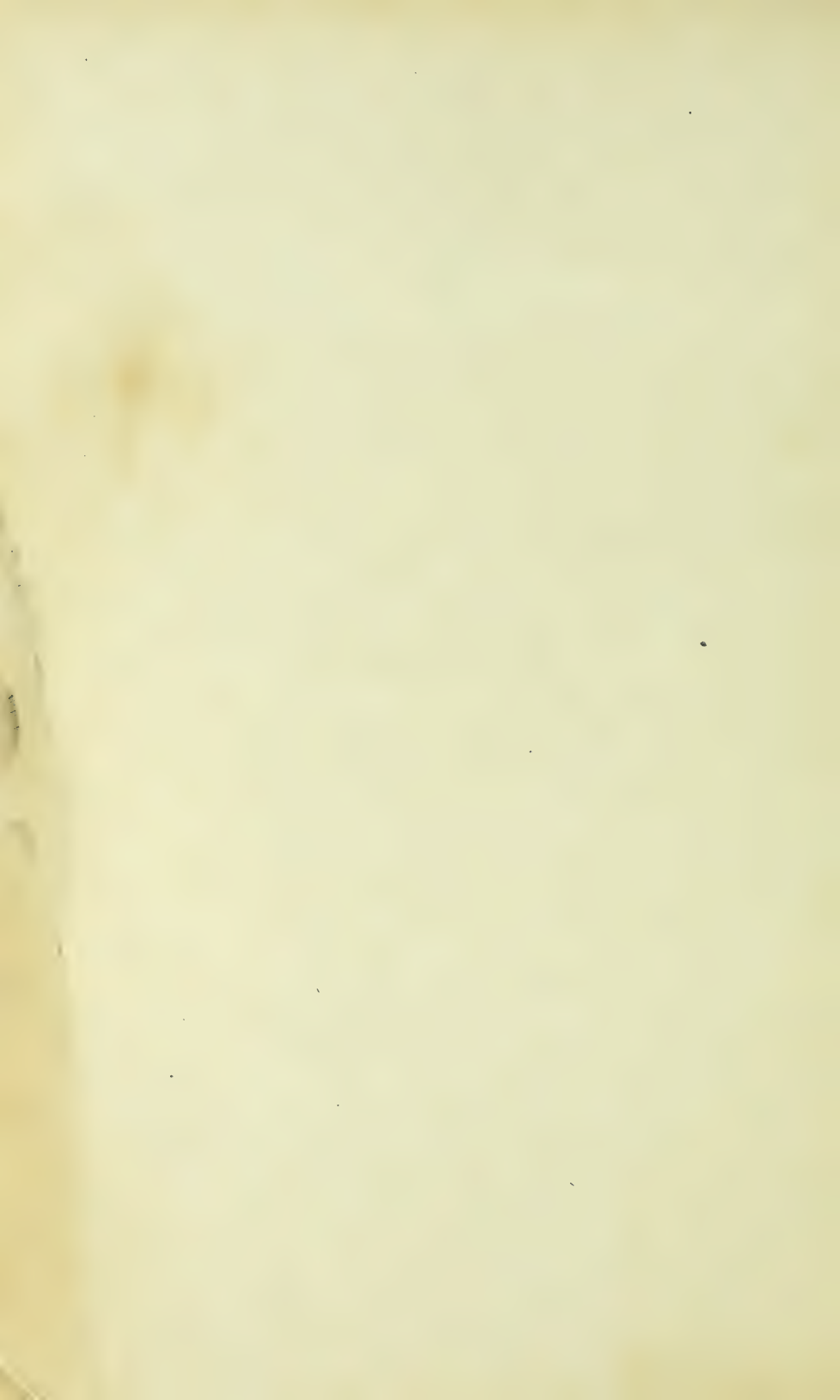
EXHIBIT No. 4—Continued.

<i>No.</i>	<i>Payable To.</i>	<i>What For.</i>	<i>Amount.</i>
52.	Havens & Geddes.....	Shirts	\$109 20
53.	Hibben, Hollweg & Co.....	Muslin, flannel, etc.....	528 74
54.	J. A. Ehrensperger.....	Boys' shoes.....	1 50
55.	Geo. F. Edenharter, Supt.....	Clothing payroll.....	207 90
56.	Peter Nutz.....	Mending shoes.....	28 10
57.	Indiana Reformatory.....	Shoes and clothing.....	748 00
58.	Hibben, Hollweg & Co.....	Muslin, hose, etc.....	227 87
59.	Havens & Geddes Co.....	Jeans, shirts, etc.....	187 86
60.	Geo. F. Edenharter, Supt.....	Clothing payroll.....	225 00
Total			\$13,583 20

EXHIBIT No. 5.

*Vouchers Paid from the Fund for Upholsters Department During the Fiscal
Year Ending September 30, 1911.*

<i>No.</i>	<i>Payable To.</i>	<i>What For.</i>	<i>Amount.</i>
1.	Christian Yeagle, Contractor.....	Construction of upholsterers' department	\$3,391 30
2	Adolf Scherrer.....	Architect fees.....	101 73
Total			\$3,493 03



FIFTH ANNUAL REPORT

OF THE

BOARD OF TRUSTEES

OF THE

Indiana Girls' School

FOR THE YEAR ENDING SEPTEMBER 30,
1911

TO THE GOVERNOR

INDIANAPOLIS :
WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING
1912



Cottage 8.

THE STATE OF INDIANA.

EXECUTIVE DEPARTMENT,

JANUARY 18, 1912.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE.

INDIANAPOLIS, January 18, 1912.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,

Auditor of State.

JANUARY 25, 1912.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,

Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, January 26, 1912.

L. G. ELLINGHAM,

Secretary of State.

Received the within report and delivered to the printer January 26, 1912.

ED D. DONNELL,

Clerk Printing Board.

LOCATION.

The Indiana Girls' School is located about eight miles northwest of Indianapolis.

Clermont, two miles west of the grounds, is the postoffice.

The school has a station on the Ben-Hur Traction Line at which any train will stop. It can be reached by the local trains on the Peoria division of the Big Four Railroad. Mitchellville stop, on the C., H. & D., is but half a mile southwest of the school.

BOARD OF TRUSTEES.

SARAH E. CAMPBELL.....	Anderson
NELLIE M. ELLINGHAM.....	Indianapolis
LOTTIE W. CALDWELL.....	LaFayette
ARAMINTA A. KERN.....	Indianapolis

EXECUTIVE OFFICERS.

Superintendent.

DR. KENOSHA SESSIONS.

LILLIAN MEYNCKE.....	Assistant Superintendent
LUELLA SCHNECK	Physician
CATHERINE COX	Principal School of Letters
CLARA C. COTTERILL.....	Clerk
ELSIE M. FARRELL.....	Stenographer
NAN B. WOOD	Visiting Agent
IDA ROBERTS.....	Visiting Agent
BELLE ROBERTS.....	Visiting Agent

Other Employees.

ELISE KRUG.....	Director
ELLA H. PFEIFFER.....	Director
RUTH DERBYSHIRE	Director
MARY LUDINGTON	Director
MAUDE ESTEP	Director
JOSEPHINE HIATT	Director
MINNIE OSTERHAUT	Director
IDA B. WOOD	Director
BELLE WILSON	Housekeeper
ELIZABETH CAMPBELL	Housekeeper
NELLIE STEWART	Housekeeper
ELIZABETH SMOCK	Housekeeper
INDIA COATS	Housekeeper

DELPHIA McCrARY	Housekeeper
JENNIE MOULTON	Housekeeper
ELIZABETH RATHFON	Housekeeper
LULA CORWIN	Laundry
JOSEPHINE PFAHLER	Laundry
BLANCHE WATT	Laundry
ELIZABETH RAWSON	Laundry
SYBIL SPOONAMORE	Laundry
PHOEBE GLADDEN	Laundry
IDA WOODMANSEE	Laundry
JOSEPHINE SAUTER	Laundry
ELLA ARNOLD	General Supply
EVA JACKSON	Teacher
GLENN ENO	Teacher
DOROTHY SMITH	Teacher
CORTEZ LUZADER	Teacher
FRANCES HENZLEY	Teacher
MARGUERITE HILLS	Teacher
EDNA HARKNESS	Music Teacher
KATHRYN HINSDALE	Cooking Teacher
ETHELYN PITTMAN	Storekeeper
GEO. BERRY	Engineer
O. P. MORGAN	Assistant Engineer
EDGAR HEATH	Fireman
FRANK GIFT	Carpenter
A. F. LEONARD	Watchman
E. L. THOMPSON	Farmer
NINA THOMPSON	Gardener
MAYME FERGUSON	Seamstress
CLYDE CORWIN	Assistant Farmer

INVENTORY.

Real estate, 127½ acres	\$10,925 00
Buildings	290,669 00
Equipment and clothing	82,421 31
Total	<hr/> \$384,015 31



Cottage 3.

REPORT OF BOARD OF TRUSTEES.

To the Honorable Thomas R. Marshall; Governor of Indiana:

We submit the fifth annual report of the Indiana Girls' School for the fiscal year ending September 30, 1911.

July 20, 1911, Miss Charlotte Dye, who had been connected with the school since its removal to the farm and superintendent since October, 1909, resigned to accept the superintendency of a similar institution at Delaware, Ohio. Miss Lillian Meyneke, who had been the bookkeeper for two and a half years took charge of the work temporarily. Dr. Kenosha Sessions of Anna, Illinois, who has had several years' experience in different institutions was elected superintendent by the Board of Trustees and assumed the duties September 12, 1911.

There has been no change in the Board of Trustees during the past year. Mrs. Nellie M. Ellingham, who had been appointed to fill the unexpired term of Mrs. Emma Lee Elam, was reappointed by the Governor for four years.

During the past summer a psychological clinic has been in operation in the school. A room was equipped with the necessary apparatus by the State University and Dr. Elmer E. Jones, head of the department of orthogenics in that institution has conducted the work. It is hoped the investigations of Dr. Jones may help to solve some of the difficult problems in discipline and suggest industrial training suited to individual needs. There is no doubt but that every case of incorrigibility is the result of causes that it is almost impossible to catalog. They may be hereditary or accidental, or both; they may be mental or physical, or both; they may be local or universal. It is the purpose of this clinic to determine, if possible, these causes, and in the light of such investigation work out an intelligent system of training and discipline.

The crowded condition in the school spoken of in the reports for the last two years still exists. While there is accommodation for 275 girls, the average for the year has been 309.763.

We have converted some rooms into small dormitories, but are still compelled to use the unfinished attics for a number of girls who cannot be accommodated elsewhere. The management of the school is very anxious to place these girls in homes, but to do this

before the girls have been in the school long enough to receive proper discipline and industrial training, only means that they will be returned shortly to the institution, and frequently in as bad or worse condition than when they were first committed. A girl should not be paroled until the management has reason to believe she will make good, unless she has reached the age of twenty-one, and must be released.

The Board of Trustees has estimated and determined the actual expense per annum of subsisting an infant committed to the Indiana Girls' School as regulated by law, Burns' R. S. 1901, Section 8281, at \$231.13. The counties from which the girls come pay half of this amount.

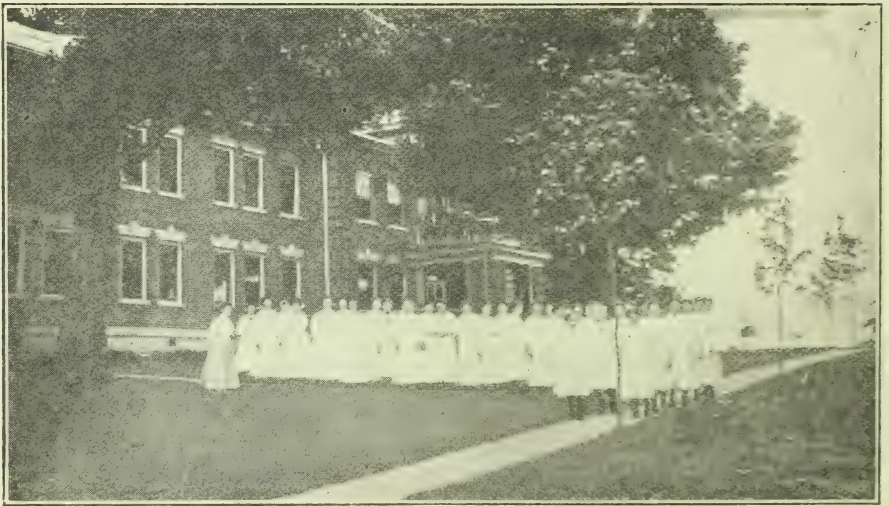
Respectfully submitted,

SARAH E. CAMPBELL, President.

NELLIE M. ELLINGHAM, Vice-President.

LOTTIE W. CALDWELL, Secretary.

ARAMINTA A. KERN, Treasurer.



Going to Chapel.

SUPERINTENDENT'S REPORT.

To the Board of Trustees of the Indiana Girls' School:

This being a report of the year ending September 30, 1911, and since I came to the school to take charge as Superintendent on September 12, my incumbency during the fiscal year is of eighteen days duration; hence a report from me of the past year is a mere formality. Whatever information I might have of the year's work must necessarily be gathered from the various reports that have been submitted from the different departments, and a report from me would be only a repetition of these facts.

Respectfully submitted,

KENOSHIA SESSIONS,
Superintendent.



Digging Potatoes.



Hauling Potatoes.



Killing the Fatted.

HOSPITAL REPORT.

To Dr. Kenosha Sessions, Superintendent:

During the year ending September 30, 1911, we have received and examined ninety-eight new girls; of these eighty-eight were white, ten were colored. Seven out of the ninety-eight were virgins.

We had 347 ticket-of-leave girls. Before departure, the ticket-of-leave girls are examined and must be in general good condition of health, free from any danger of infection or contagion before certificate of health is issued them. One hundred and seventeen girls were returned from ticket-of-leave. All new and return girls are carefully examined, as these are the cases that may bring in specific disease, though quite a number of our girls come from tubercular families. We have a large number of naso-pharyngeal cases to look after. A large per cent. have hypertrophied tonsils. We have not had many contagious diseases.

The term "disease" can hardly be applied to many that came under the physician's care. There are psychical waves or disturbances that mean much in treatment of mental and moral faculties.

The hospital being small, a home for the sick, and also a place of detention, a passport for all new and return girls, we have not room for doing medical work as satisfactorily as we could in larger quarters.

Respectfully submitted,

LUELLA SCHNECK, M.D.,

Physician.

REPORT OF CLERK.

To the Superintendent:

On the following pages are given the financial tables of the Indiana Girls' School for the fiscal year ending September 30, 1911.

Respectfully submitted,

CLARA C. COTTERILL,

Clerk.

SUMMARY OF EXPENDITURES FROM OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

Exp.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total.
Maintenance.....	\$4,745 41	\$6,344 71	\$6,227 24	\$5,229 20	\$6,108 77	\$4,768 78	\$5,443 03	\$4,492 59	\$5,230 20	\$4,410 07			\$53,000 00
Excess population.....				2 00					150 00	1,067 97			13,013 86
Library.....	11 52	33 25	11 20	20 25	3 13	17 04	29 78	85 65	50 76	3 13	\$5,661 78	\$6,134 11	297 90
Discharge.....	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	120 00	106 50	165 00	148 50	1,500 00
Industrial supplies.....	271 44	225 36	251 53	234 91	275 98	248 14	303 53	330 50	357 50	338 88	321 85	1,204 84	4,474 50
Total.....	\$5,148 37	\$6,723 32	\$6,609 97	\$5,604 36	\$6,567 88	\$5,154 00	\$5,986 34	\$5,028 74	\$5,908 46	\$5,946 55	\$6,162 73	\$7,505 54	\$72,286 26

SUMMARY OF STATISTICS FOR THE YEAR ENDING SEPTEMBER 30, 1911.

(Prepared in conformity to resolution adopted by the National Conference
of Charities and Correction, Philadelphia, May, 1906.)

Movement of Population.

Number of girls enrolled October 1, 1910.....	326
Number of girls received from courts and ticket-of-leave during the year	320
Number of girls discharged during the year.....	347
Number of girls enrolled September 30, 1911.....	299
Daily average attendance of inmates for the year ending Septem- ber 30, 1911.....	309.763
Average number of officers and employes.....	55

Expenditures.

Ordinary Expenses—	Total.	Per Capita.
Salaries and wages.....	\$23,223 05	\$74.97
Subsistence	13,514 75	43.63
Clothing	4,419 29	14.36
Office, domestic and out-door departments.....	29,926 07	93.71
Ordinary repairs	2,073 10	6.69
 Total	 \$72,286 26	 \$233.36
Less receipts and earnings.....	71,979 11	231.13
Grand total expenses		\$72,286 26
Receipts and earnings		307 15
 Net total expenses		 \$71,979 11

CLASSIFIED EXPENDITURES FROM OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

CURRENT EXPENDITURES.

Administration—	Per Capita Based on Daily Av- erage Attendance.	
	Amount.	
Trustees and Directors	\$1,200 00	\$3.873
Officers	4,669 08	15.072
Teachers, literary	2,590 08	8.364
Industrial teachers	9,769 87	31.539
Other employes	4,814 02	15.550
Chapel	180 00	.581
Total	\$23,223 05	\$74.979
Subsistence—		
Fresh meats	\$1,857 64	\$5.996
Salted meats and lard	1,132 18	3.654
Fish (fresh and cured), oysters, etc.....	80 14	.258
Butter, eggs and poultry	1,609 25	5.195
Vegetables	1,234 47	3.985
Fresh fruits	120 50	.389
Dried fruits	882 02	2.847
Canned goods	8 00	.025
Breadstuffs, cereals, beans, etc.....	2,477 63	7.998
Vinegar and syrup	349 83	1.129
Tea, coffee and sugar	1,083 53	3.497
Milk	2,325 81	7.508
Other food supplies	353 75	1.142
Total	\$13,514 75	43.623
Clothing—		
Clothing	\$2,393 56	\$7.726
Shoes	1,623 75	5.241
Tailor and sewing-room supplies	264 53	.853
Miscellaneous	167 45	.540
Total	\$4,449 29	\$14.360
Sundries—		
School supplies	\$142 67	\$0.460
Library, newspapers and periodicals	297 90	.961
Stationery and printing	485 96	1.568
Supplies for industrial department	4,474 50	14.444
Furniture, fixtures, bedding and other house- hold equipment	2,838 26	9.162

	Amount.	Per Capita Based on Daily Av- erage Attendance.
Laundry supplies	804 08	2.595
Medicines, instruments and other sick ward supplies	825 10	2.663
Postage, telegraph and telephone	539 18	1.746
Freight and transportation	2,175 34	7.022
Stable, farm, garden, provender, etc.....	1,610 64	5.199
Music and amusements		
Discharge	1,500 00	4.842
Fuel	10,184 42	32.878
Engineer's supplies	2,677 74	8.644
Other classifications	470 28	1.518
Total	\$29,026 07	\$93.702
Ordinary Repairs and Minor Improvements—		
Materials	\$1,333 54	\$4.305
Labor	739 56	2.387
Repair fund		
Total	\$2,073 10	\$6.692
Grand total of current expenditures	\$72,286 26	\$233.356
Less earnings paid into State treasury	307 15	.991
Less amount due from counties for clothing, main- tenance, etc.	17,149 99	55.364
Net cost to State	\$54,828 51	\$177.001

AVERAGE PRICE PAID DURING PERIOD INCLUDED IN REPORT
FOR 1911.

Flour, per barrel	\$4 19 1/3
Fresh beef, per 100 pounds	8 00
Pickled pork, per pound	13
Potatoes, per bushel	73
Beans, per bushel	2 40
Butter, per pound	10 1/3
Milk, per gallon	17 1/2
Tea, per pound	28 7/11
Coffee, per pound	23
Sugar, per 100 pounds	4 11

FARM AND GARDEN PRODUCTS.

QUANTITY.	Product and Cost per Unit.	Used in Kitchen.	Used in Outdoor Departments.
6,463 $\frac{1}{2}$ pounds.....	Pork, at 10 $\frac{1}{2}$ c to 12c.....	\$732 44	
588 $\frac{1}{2}$ pounds.....	Chickens, at 12c to 18c.....	94 00	
1,282 pounds.....	Lard, at 10c to 12c.....	147 24	
1,306 $\frac{1}{2}$ pounds.....	Eggs, at 13c to 31c.....	196 21	
128 barrels.....	Kale, at 50c to \$1.25.....	142 00	
51 bushels.....	Parsnips, at 75c.....	38 25	
1,706 doz. bunches.....	Onions, at 8c to 50c.....	189 60	
108 bushels.....	Onions, at \$1.00 to \$1.50.....	158 00	
3,368 pounds.....	Lettuce, at 5c to 10c.....	272 16	
192 dozen.....	Rhubarb, at 18c to 20c.....	35 84	
174 doz. bunches.....	Asparagus, at 20c to 40c.....	36 00	
48 barrels.....	Spinach, at \$1.50.....	72 00	
464 doz. bunches.....	Radishes, at 10c to 12 $\frac{1}{2}$ c.....	57 00	
54 bushels.....	Peas, at 62 $\frac{1}{2}$ c to \$1.12.....	45 75	
210 bushels.....	Potatoes, at 90c to \$1.60.....	171 80	
797 $\frac{1}{2}$ bushels.....	Potatoes, at 40c to \$1.00.....	419 40	
358 barrels.....	Cabbage, at 50c to \$4.00.....	341 20	
16 doz. bunches.....	Beets, at 50c.....	8 00	
88 bushels.....	Beets, at 60c to \$1.00.....	62 40	
24 gallons.....	Beans (green), at 16c.....	3 84	
187 $\frac{1}{2}$ bushels.....	Beans (green), at 37 $\frac{1}{2}$ c to \$1.00.....	96 61	
76 bushels.....	Turnips, at 50c to 75c.....	48 00	
1,760 dozen.....	Corn, at 5c to 12 $\frac{1}{2}$ c.....	176 68	
322 dozen.....	Peppers, at 2 $\frac{1}{2}$ c to 15c.....	12 90	
68 dozen.....	Mangoes, at 10c to 20c.....	7 60	
42 $\frac{1}{2}$ dozen.....	Cucumbers, at 30c to 40c.....	13 00	
3,200 bushels.....	Pickles, at 50c per 100.....	16 00	
24 gallons.....	Popcorn, at \$1.50.....	36 00	
49 gallons.....	Sorghum, at 90c.....	44 10	
112 bushels.....	Cantaloupes, at 2 $\frac{1}{2}$ c.....	2 80	
40 barrels.....	Cantaloupes, at \$1.75.....	70 00	
932 bushels.....	Watermelons, at 5c to 10c.....	65 40	
32 bunches.....	Carrots, at 75c.....	24 00	
408 bunches.....	Salsify, at 10c.....	40 80	
52 bushels.....	Sweet potatoes, at 75c.....	39 00	
16 barrels.....	Sweet potatoes, at \$2.75.....	44 00	
240 pounds.....	Sage, at 10c.....	24 00	
61 $\frac{1}{2}$ bushels.....	Apples, at 50c to \$1.00.....	57 50	
36 gallons.....	Cherries, at 20c.....	7 20	
152 gallons.....	Strawberries, at 41 $\frac{1}{2}$ c to 50c.....	64 99	
236 gallons.....	Gooseberries, at 41 $\frac{1}{2}$ c.....	98 35	
160 gallons.....	Currants, at 50c.....	80 00	
92 gallons.....	Raspberries, at 37 $\frac{1}{2}$ c to 50c.....	38 50	
152 gallons.....	Blackberries, at 37 $\frac{1}{2}$ c.....	57 00	
Total.....		\$4,387 56	

STATEMENT OF EARNINGS.

MONTH.	SOURCE OF RECEIPT.						Total.
	Ice.	Meals.	Sale of Sloyd Articles.	Sale of Barrels.	Sale of Junk.	Miscel- laneous.	
October.....		\$2 70	\$0 50			\$3 15	\$6 35
November.....	\$0 60	11 40				56 26	68 26
December.....	2 50	32 25				10 15	44 90
January.....		15					15
February.....		20 40	25				20 65
March.....		45		7 02			7 47
April.....		60				1 00	1 60
May.....		1 20	2 00			5 20	8 40
June.....		4 35	11 80			89 67	105 82
July.....	2 80	2 55	30			2 10	7 75
August.....		6 75	05	6 50		20	13 50
September.....	8 70	10 15	1 25			2 20	22 30
Totals.....	\$14 60	\$92 95	\$16 15	\$13 52		\$159 93	\$307 15

DATE.	Amount.	Number of Quintus.
November 4.....	\$6 35	2789
December 1.....	68 26	2964
January 7.....	44 90	3184
February 2.....	15	3278
March 1.....	20 65	3401
April 1.....	7 47	3620
May 1.....	1 60	3855
June 1.....	8 40	4098
July 1.....	105 82	4469
August 1.....	21 05	4242
September 30.....	1 75	4274

APPROPRIATIONS.

FUND.	Act Approved.	Regular or Specific.	Amount Available for Cur- rent Year.	Amount Expended During Year.	Balance Reverting to State Treasury
Maintenance.....	Mar 9, 1909...	Regular	\$53,000 00	\$53,000 00	
Excess population.....	Mar 9, 1909...	Regular	13,065 86	13,013 86	\$52 00
Library.....	Mar 9, 1909...	Regular	300 00	297 90	2 10
Discharge.....	Mar 9, 1909...	Regular	1,500 00	1,500 00	
Industrial.....	Mar 9, 1909...	Regular.....	4,500 00	4,474 50	25 50
Total.....			\$72,365 86	\$72,286 26	\$79 60

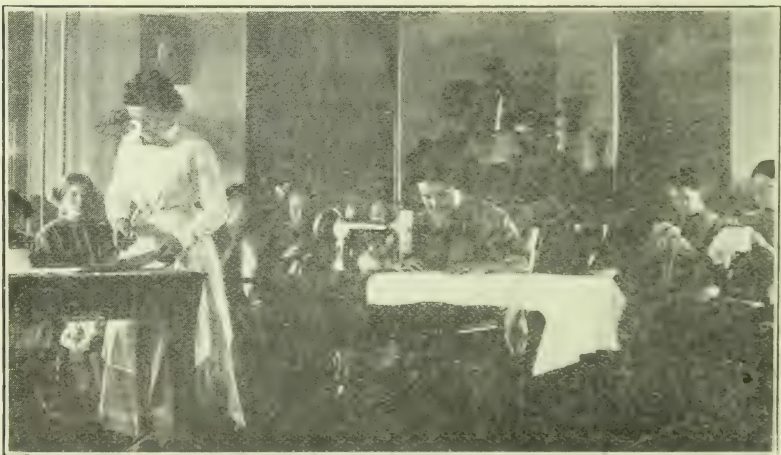
OFFICERS AND EMPLOYEES SEPTEMBER 30, 1911.

POSITION.	Number Employed.	Salary per Month.	Additional Compensation (Board, Laundry, etc.)
Trustees	4	\$25 00	None.
Superintendent.....	1	125 00	Board and laundry.
Assistant superintendent.....	1	100 00	Board and laundry.
Clerk.....	1	65 00	Board and laundry.
Stenographer.....	2	40 00 (35 00)	Board and laundry.
Physician.....	1	41 67	None.
Nurse.....	1	40 00	Board and laundry.
Directors.....	8	40 00	Board and laundry.
Housekeepers.....	8	30 00	Board and laundry.
Laundry officers.....	8	30 00	Board and laundry.
Principal of school.....	1	75 00	Board and laundry.
Teachers.....	5	35 00	Board and laundry.
Dressmaker.....	1	35 00	Board and laundry.
Visiting agents.....	12	75 00 (45 00)	Board and laundry.
Storekeeper.....	1	30 00	Board and laundry.
Carpenter.....	1	50 00	Board and laundry.
Farmer.....	1	70 00	Board and laundry.
Assistant farmer.....	1	35 00	Board and laundry.
Engineer.....	1	90 00	Heat, light, rent.
Assistant engineer.....	1	55 00	Heat, light, rent.
Firemen.....	1	50 00	None.
Nightwatch.....	1	50 00	None.

*In the Laundry.*



In the Kitchen.



In the Sewing Room.

CONCERNING GIRLS COMMITTED BY COURTS DURING THE YEAR.

STATISTICS.	For Inco- rrigibility.	For Felony.	Total.
AGE.			
Ten.....	1		1
Eleven.....	1	2	3
Twelve.....	2		2
Thirteen.....	1	5	6
Fourteen.....	4	6	10
Fifteen.....	7	18	25
Sixteen.....	9	22	31
Seventeen.....	3	6	9
Eighteen.....		5	5
Total.....	28	64	92
COLOR.			
White.....	20	63	83
Colored.....	8	1	9
Total.....	28	64	92
NATIVITY.			
Indiana.....	19	49	68
Ohio.....	1	2	3
Illinois.....	3	7	10
Kentucky.....	4	1	5
Michigan.....		2	2
Pennsylvania.....	1		1
New York.....		1	1
Nebraska.....		1	1
Texas.....		1	1
Total.....	28	64	92
CHARACTER OF ASSOCIATES.			
Good.....		2	2
Fair.....	3	4	7
Bad.....	25	58	83
Total.....	28	64	92
OCCUPATION AT TIME OF COMMITMENT.			
Living at Home—			
Housework.....	16	21	37
Laundry.....		3	3
Waitress.....	1		2
Going to school.....	1	1	2
Clerk in store.....		1	1
In office.....		1	1
Factory.....		3	3
Tailor shop.....		1	1
Wrapper in store.....		1	1
Prostitution.....		2	2
Total.....	18	35	53
MENTAL CONDITION.			
Active.....	22	15	67
Fair.....	6	16	22
Dull.....		3	3
Total.....	28	64	92

STATISTICS.	For Incon- gruity.	For Felony.	Total.
PHYSICAL CONDITION.			
Good.....	21	50	71
Fair.....	6	13	19
Poor.....	1	1	2
Total.....	28	64	92
HABITS.			
Tobacco.....		6	6
Cigarettes.....	3	9	12
Liquor.....	10	25	35
Total.....	13	40	53
CHURCH RELATION.			
Catholic.....		1	1
United Brethren.....	1	4	5
Methodist.....	1	2	3
Baptist.....	3	5	8
Christian.....	4	8	12
Methodist Episcopal.....	3	3	6
Congregationalist.....		1	1
Presbyterian.....		3	3
Lutheran.....		1	1
Rescue Mission.....	1		1
None.....	15	35	50
Total.....	28	64	92
SOCIAL CONDITION OF PARENTS.			
Parents living together.....	9	25	34
Parents living but separated.....	5	22	27
Father dead.....	4	2	6
Mother dead.....	9	11	20
Both dead.....	1	4	5
Total.....	28	64	92
Number having step father.....		10	10
Number having step-mother.....	6	7	13
Illegitimate.....	1	1	2
Total.....	7	18	25
NATIVITY OF PARENTS.			
Native born.....	12	27	39
Foreign born.....			
Mother native, father foreign.....		2	2
Father native, mother foreign.....			
Unknown.....	36	35	71
Total.....	28	64	92
PECUNIARY CONDITION OF PARENTS.			
Good.....		4	4
Moderate.....	6	11	17
Poor.....	18	17	35
Unknown.....	4	2	6
Total.....	28	34	62
HARDSHIP OF PARENTS.			
Number having intemperate fathers.....	6	18	24
Number having intemperate mothers.....	1	2	3
Number having both parents intemperate.....	1	1	2
Number having both parents temperate.....	20	43	63
Total.....	28	64	92

STATISTICS.	For Incon- victibility.	For Felony.	Total.
OCCUPATION AT TIME OF COMMITMENT.			
Total living at home.....	18	35	53
Not living at home—			
Housework.....	6	14	20
Actress.....		1	1
Doing nothing.....		4	4
Office.....		1	1
Factory.....		5	5
Waitress.....		1	1
Tele. operator.....		1	1
Laundry.....		1	1
Prostitution.....		1	1
None.....	4		4
Total.....	28	64	92

COUNTY REPRESENTATION.

COUNTIES.	MOVEMENT OF POPULATION FROM OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.			
	Received from Courts.	Released.	Present at Close of Year.	Clothing and Subsistence.
Adams.....			1	\$60 00
Allen.....	3	23	8	166 66
Bartholomew.....		3	4	256 67
Boone.....	1	5	3	131 01
Clark.....	1	6	3	126 66
Clay.....	6	5	9	466 35
Clinton.....	2	5	9	451 01
Daviess.....	2		3	106 00
Dearborn.....			1	60 00
Decatur.....		2		2 33
Dekalb.....	1	3	1	17 34
Delaware.....	4	13	11	552 09
Dubois.....			1	60 00
Elkhart.....	4	14	10	429 00
Fayette.....	1		1	60 00
Floyd.....		2		40 33
Fountain.....	2	2	3	132 66
Gibson.....		1		6 00
Grant.....		4	1	82 34
Greene.....			3	180 00
Hamilton.....		3	3	150 00
Henry.....	1		1	60 00
Howard.....	2	10	6	450 32
Huntington.....		1	1	60 00
Jay.....		3	1	74 00
Jackson.....	1		1	44 33
Jefferson.....		3	1	52 00
Jennings.....	1		1	60 00
Johnson.....		1	2	176 67
Knox.....	3	15	7	289 33
Kosciusko.....		8	5	152 99
Lagrange.....			2	120 00
Lake.....	3	8	9	51 68
Laporte.....	1	4	6	468 00
Lawrence.....	1	1	3	180 00
Madison.....	1	12	8	467 66
Marion.....	20	81	66	1,185 64
Martin.....	2		3	180 00
Miami.....		2		11 33
Monroe.....	2	4	6	372 34

COUNTIES.	MOVEMENT OF POPULATION FROM OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.			
	Received from Courts.	Released.	Present at Close of Year.	Clothing and Subsistence.
Montgomery.....	1	3	3	183 33
Morgan.....		1		26 00
Noble.....	2	4	4	205 33
Parke.....		4	2	32 00
Pike.....		1	2	120 00
Posey.....			2	120 00
Putnam.....	1	6	5	256 66
Randolph.....		3	1	73 00
Rush.....		3	1	60 00
St. Joseph.....	1	5	7	395 33
Shelby.....	2	5	3	150 01
Spencer.....	1	4	3	182 00
Starke.....			1	60 00
Steuben.....			1	60 00
Sullivan.....	1	4	2	61 00
Switzerland.....		1		36 33
Tiptecanoe.....		4	4	285 34
Tipton.....		7	1	44 00
Vanderburgh.....	4	1	10	600 00
Vermillion.....	2	1	1	60 00
Vigo.....	12	31	27	1,372 69
Wabash.....		1	2	171 33
Warrick.....		2	2	93 33
Washington.....		2	1	7 00
Wayne.....		7	6	368 99
Wells.....		2	1	29 00
White.....			1	60 00
Whitley.....		1	2	82 67
Total.....	92	347	299	\$17,149 99

COUNTIES FROM WHICH GIRLS HAVE BEEN RECEIVED SINCE THE OPENING OF THE INSTITUTION.

Adams	4	Dubois	6
Allen	84	Elkhart	46
Bartholomew	31	Fayette	7
Benton	5	Fountain	11
Blackford	13	Franklin	2
Boone	22	Floyd	17
Carroll	4	Fulton	4
Cass	22	Gibson	9
Clay	25	Grant	24
Clinton	30	Greene	14
Clark	17	Hamilton	19
Crawford	2	Hancock	3
Daviess	26	Harrison	3
Dearborn	21	Hendricks	5
Decatur	28	Henry	18
Delaware	54	Howard	66
Dekalb	16	Huntington	20

Jackson	13	Pulaski	5
Jasper	5	Putnam	19
Jay	6	Randolph	11
Jefferson	22	Ripley	1
Jennings	8	Rush	8
Johnson	15	Scott	1
Knox	31	Shelby	19
Kosciusko	34	Spencer	11
Lake	31	Starke	6
Lagrange	7	Steuben	12
Laporte	25	St. Joseph	36
Lawrence	17	Sullivan	19
Madison	72	Switzerland	4
Marion	458	Tippecanoe	50
Marshall	6	Tipton	21
Martin	7	Vanderburgh	66
Miami	12	Vermillion	4
Monroe	21	Vigo	122
Montgomery	42	Wabash	12
Morgan	11	Warren	3
Newton	3	Warrick	9
Noble	17	Washington	9
Ohio	1	Wayne	61
Orange	1	Wells	10
Owen	5	White	4
Parke	16	Whitley	12
Perry	3	United States	3
Pike	6		
Porter	6	Total	2,126
Posey	9		

Counties from which no girls have been received, Brown and Union.



The Cooking School.

MOVEMENT OF POPULATION.

FOR YEAR ENDING.	HOW RECEIVED.				HOW RELEASED.						Remaining at Close of Year.	Daily Average Attendance.
	Courts.	Ticket-of-Leave.	Escaped.	Total.	Discharged.	Ticket-of-Leave.	Escaped.	Died.	Miscellaneous.	Total.		
December 31, 1873.....	15			15							15	
December 31, 1874.....	84			84						15	84	
December 31, 1875.....	57			57						14	127	
December 31, 1876.....	57			57						28	150	
December 31, 1877.....	40			40						53	138	
December 31, 1878.....	44			44						32	147	
December 31, 1879.....	52	5		57	28	25	1	2	3	59	147	
December 31, 1880.....	41	5		46	16	26	1	1	1	45	148	
October 31, 1881.....	52	6		58	27	29		1		58	148	
October 31, 1882.....	51	7		58	21	40		1		62	144	
October 31, 1883.....	34	6		40	16	24		1		41	143	
October 31, 1884.....	48	6		54	20	35				55	142	
October 31, 1885.....	40	4		44	17	31		1	1	50	132	
October 31, 1886.....	38	7		45	11	34			3	48	120	
October 31, 1887.....	31	20		51	28	23			1	52	128	
October 31, 1888.....	44	10		54	30	18			1	49	133	
October 31, 1889.....	48	5		53	22	19			1	42	144	135
October 31, 1890.....	43	10		53	22	23		1		46	151	152.1
October 31, 1891.....	42	17		59	31	29	1	2	4	67	143	142.5
October 31, 1892.....	48	9		57	12	36		3	5	56	144	134.3
October 31, 1893.....	45	12		57	11	36		3	3	53	148	146.3
October 31, 1894.....	36	6		42	19	14		4	1	38	152	154
October 31, 1895.....	60	8		68	11	29				40	180	169
October 31, 1896.....	30	11		41	5	13			1	19	202	189.7
October 31, 1897.....	46	13		59	11	44				55	206	206.3
October 31, 1898.....	46	23		69	39	34		2		75	200	206.6
October 31, 1899.....	39	21		60	15	64		1		80	180	184.3
October 31, 1900.....	35	27		62	2	53				55	187	182.6
October 31, 1901.....	44	20		64	4	103				107	144	166.5
October 31, 1902.....	42	29		71	9	31				40	175	157.01
October 31, 1903.....	53	13		66	8	26				34	207	183.5
October 31, 1904.....	51	20		71	2	68		4	4	75	203	207.6
October 31, 1905.....	69	22		91	1	54				55	239	214.02
October 31, 1906.....	85	20		105	2	57	2	5		84	260	253.165
September 30, 1907.....	73	137		210						158	213	237.413
September 30, 1908.....	119	174	5	298	1	263	11	1		276	235	218.38
September 30, 1909.....	140	160	9	309	10	195	17			222	322	286.841
September 30, 1910.....	113	173	17	304	2	282	13	1	2	300	326	319.652
September 30, 1911.....	92	219	9	320	23	299	19		6	347	299	309.763

DISPOSITION OF POPULATION AND AGENTS' WORK.

Number of girls placed in homes once	144
Number of girls placed in homes twice	48
Number of girls placed in homes three times	14
Number of girls placed in homes four times	5
Number of girls placed in homes six times	1
Number of girls sent to hospital	1
Number of girls sent to Tuberculosis Hospital	1

Total number of placements and replacements

Transferred to School for Feeble-Minded Youth.....

Transferred to prison

Escaped from school and not returned	10
Escaped from ticket-of-leave and not returned	8
Died on ticket-of-leave	1
Died in school	0
Number of homes investigated	416
Number of homes approved	277
Number of homes not approved	139
Visits to girls	903
Special calls in behalf of girls	207
Girls accompanied to homes	177
Girls returned for bad conduct	32
Girls returned for various causes (conduct good)	104
Official calls	64
Court cases attended	17
Girls on ticket-of-leave doing well	240
Girls on ticket-of-leave not doing well, or whose conduct is doubtful..	60
Girls under our care, married and living with husbands	43
Girls married, but not living with husbands	23

EDUCATIONAL STANDING OF GIRLS COMMITTED DURING THE YEAR.

AGE.	Illiterate	1st Year.	2nd Year.	3rd Year.	4th Year.	5th Year.	6th Year.	7th Year.	8th Year.	1st High School.	Total
Ten years						1					1
Eleven years	1				2						3
Twelve years					1		1				2
Thirteen years				3	1	1		1			7
Fourteen years				2	1	2	3	2			10
Fifteen years		1	1	3	3	4	5	3	5		25
Sixteen years	1	1	1	1	2	5	6	6	6	1	30
Seventeen years			1	2	1	2	1	2			9
Eighteen years			1	2		1			1		5
Total	2	2	4	13	11	16	17	14	12	1	92

NUMBER OF GIRLS WHO HAVE STOPPED SCHOOL UNDER FOURTEEN YEARS OF AGE.

NUMBER.	Age.		COUNTY
1	10	Illiterate.	Allen.
3	11	Martin, DeKalb, Noble.
2	12	Elkhart, Vanderburgh.
3	13	1 to 2 years.....	Martin, St. Joseph, Shelby, Sullivan.
9	14	1 to 2 years.....	Howard, Elkhart, Delaware, Knox, Fayette, Boone.
22	15	1 to 5 years.....	Clay, Davis, Montgomery, Delaware, Shelby, Vanderburgh, Monroe, Laporte, Clark, Lawrence and Noble.

ARTICLES MADE AT SCHOOL BUILDING.

MANUAL TRAINING CLASSES, 1910-1911.

Bench work, pieces	379
Carpet woven, yards	350
Torchon lace, yards	40
Chairs caned, number	45
Stockings colored, pairs	800
Goods colored, yards	50
Books mended by principal's girls	2,000
Books mended by assistant librarian	500
Books mended by teachers	500
Scarfs knit	2
Towels made and embroidered	12
Dresser scarfs made and embroidered	6
Serving cloths made and embroidered	30
Towels made	68
Napkins made	12
Half sleeves for cooking class and bench work	14
Book bags	36
Broom hoods	12
Napkin rings (tilo matting)	36
Turnover collars	190
Handkerchiefs	86
Raffia mats	12
Raffia baskets	18
Collar boxes	13
Scrap boxes	7
Reed baskets	1
Flag, six by eight feet	1
Bench aprons	10
Pillow slips embroidered	4
Jabots	15
Tray cloths hemstitched	28



At School.

WORK DONE BY THE GIRLS DURING THE YEAR ENDING SEPTEMBER 30, 1911.

SEWING.

Garments made	8,901	Garments repaired	63,833
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LAUNDRY.

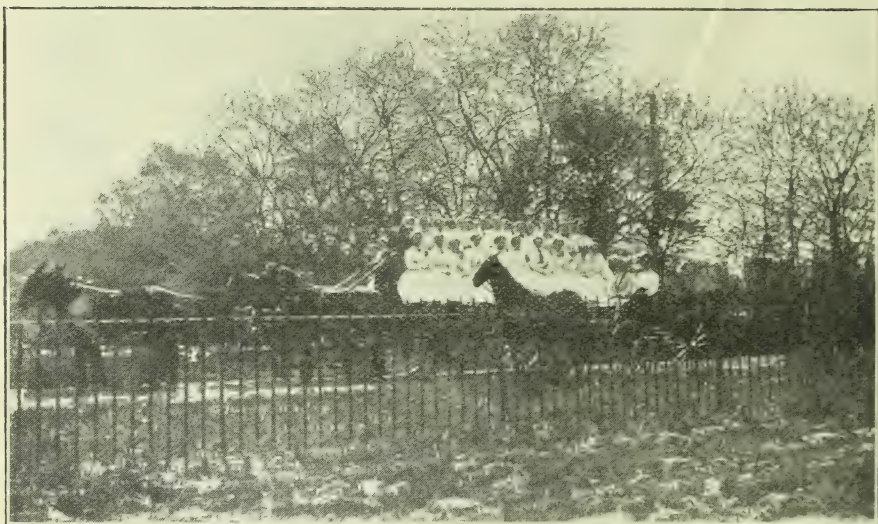
Work done for officers	43,850	Housework	139,403
Work done for girls	145,114	Hospital	14,463

BAKING.

Pies	2,413	Corn bread	562
Cookies	17,724	Graham bread	55,315
Rolls	22,136	Ginger bread	269
Biscuits	39,881	White bread	43,501
Doughnuts	4,913	Salt rising bread	119
Cup cakes	1,193	Cakes	758
Gems	4,132	Coffee cakes	83
Pan cakes	10,787	Spice cakes	12
Puddings	1,185	Fruit cakes	3
Muffins	712	Tarts	151
Cream puffs	33		

CANNING.

Peaches, quarts	10	Kraut, gallons	251
Peach butter, quarts	11	Tomatoes, quarts	2,628
Pears, quarts	87	Mangoes, quarts	129
Grapes, quarts	50	Corn	250
Blackberries, quarts	126	Beans, quarts	544
Cherries, quarts	592 $\frac{1}{2}$	Beets, quarts	213
Rhubarb, quarts	36	Peas, quarts	7
Jellies, pints	1,357	Pickled tomatoes, quarts....	84
Apple butter, quarts	93	Pickled beans, quarts	253
Apricot butter, quarts	4	Pickled cabbage, quarts....	34
Tomato butter, quarts	9	Chili sauce, quarts	155
Pear preserves, quarts	32	Chow-chow, quarts	96
Tomato preserves, quarts....	84	Tomato catsup, quarts	125
Melon preserves, quarts	66	Cucumber pickles, quarts....	108
Cherry preserves, quarts....	90 $\frac{1}{2}$	Cranberries, quarts	8
Mincemeat, quarts	55		



A Picnic.



A Sleigh Ride.

THE INDIANA GIRLS' SCHOOL.

(1869 S., p. 61. In force May 13, 1869.)

8254. (6162.) *Established.* 1. There shall be established as soon as possible after the taking effect of this act, at or near the city of Indianapolis, an institution to be known as the "Indiana Reformatory Institution for Women and Girls."

Diminution of time for good behavior.—Sections 8238-8241.

Home for Friendless Women.—Sections 8243-8350.

The penal department created by this act is a State Prison, and the act of April, 1881, concerning public offenses and their punishment, did not repeal any of the provisions of this act.—Walton v. State, 88 Ind. 9.

(Acts 1899, p. 22. In force February 7, 1899.)

8255. *Name changed.* 1. That the name of the State institution known as the Reform School for Girls and Women's Prison be changed. That hereafter, said institutions shall be, and they are hereby declared to be separate and distinct; the first of said institutions to be named and known as the "Indiana Industrial School for Girls," the second institution to be named and known as "The Indiana Woman's Prison."

8255a. *Laws Applicable.* 2. All laws in force respecting the said "Reform School for Girls and Women's Prison," including the management thereof, shall, as far as applicable thereto, apply and continue to these separate institutions.

(1877, p. 64. In force March 3, 1877.)

8256. (6163.) *Board of Managers to be Women.*—*Board of Audit.* 2. The general supervision and government of said institution shall be vested in a Board of Managers consisting of three persons, who shall be women, to be known and designated as the "Board of Managers of the Indiana Reformatory Institution for Women and Girls." The members of the first board to be appointed under this act shall be Mrs. Emily A. Roache, Mrs. Rhoda M. Coffin and Mrs. Eliza Hendricks, whose term of office shall be, respectively, two, four, and six years, said term of office to expire in the same order as the names occur in this act. As vacancies sub-

sequently occur in the board, their successors shall be appointed by the Governor, by and with the advice and consent of the Senate, and shall hold their offices for the term of four years from their appointment, and until their successors are appointed and qualify. The term of each manager shall be designated in her certificate of appointment. Upon the expiration of the term of service of any member of the Board of Managers, one manager shall be appointed in the same manner, whose term of office shall continue four years from and after the expiration of the term of her predecessor, and until her successor is appointed and qualified. All vacancies in said board shall be filled by appointment by the Governor, subject to approval by the Senate at its next succeeding session. The person appointed to fill a vacancy shall be entitled to hold her office for the unexpired portion of the term of the person whom she may be appointed to succeed. Said managers, before entering upon the discharge of their duties, shall take an oath or affirmation faithfully to perform the duties of their office; which oath or affirmation shall be filed and preserved in the office of the Secretary of State: Provided, however, That the Governor, Auditor and Secretary of State shall constitute a Board of Audit, whose duty it shall be to examine, audit and approve of the accounts and acts of said Board of Managers appointed under the provisions of this act.

(1869, S., p. 61. In force May 13, 1869.)

8257. (6164.) *President.* 3. The said Board of Managers shall appoint one of their number as President of the Board.

8261. (6168.) *Female Superintendent and Officers.—Rules.* 7. Said Board of Managers, may with the approval of the Governor, appoint a suitable superintendent of said institution, and all necessary subordinates (not exceeding a number to be fixed by the Governor), and fix their respective salaries, and shall have power, with the like approval, to make and enforce all such rules, regulations, ordinances and by-laws for the government and discipline of said institution, and for the admission of girls into the Reformatory Department thereof, as they may deem just and proper. The superintendent and all the subordinate officers of said institution shall be females: Provided, however, That if a married woman shall be appointed superintendent or to any subordinate position, the husband of such appointee may, with the consent of the board, reside in the institution, and may be assigned such duties or employment as the Board of Managers may prescribe.

8262. (6169.) *Bond of Superintendent.* 8. Before entering upon the discharge of her duties, the superintendent shall give bond to the State of Indiana, in the sum of ten thousand dollars or over, with security to be approved by said Board of Managers, conditioned for the faithful performance of her duties as such superintendent, and that she will faithfully account for all moneys, property and effects intrusted to her as such, and shall take an oath or affirmation to discharge the duties of her said office with fidelity; and if said superintendent shall be a married woman, such bond shall be executed by her husband and her sureties, but need not be signed by her.

8263. (6170.) *Duties of Superintendent.* 8. The superintendent shall reside at the institution and shall have charge and custody of the buildings and other property thereof, and of the inmates who may be committed to both departments of the institution, and shall govern them in accordance with such rules and regulations as the Board of Managers may prescribe, and shall employ such methods of discipline as will as far as possible, reform the characters, preserve the health, promote regular improvement in the studies and industrial employments of the inmates of the institution, and secure them fixed habits of industry, morality and religion. The rules, regulations and discipline of each department of the institution shall be adapted to the character of the inmates thereof.

8264. (6171.) *Interest in Contracts.* 9. No manager, officer or employe of said institution shall be personally interested, directly or indirectly, in any contract, purchase or sale made by or to on behalf of said institution or in any business carried on for or on behalf of said institution. All contracts, purchases or sales made in violation of this section shall be deemed and held null and void; and all money paid to such managers, officers, or employes or to any person for their benefit, in whole or in part consideration of such purchase, contract or sale, may be recovered back by civil action, in the name of the State of Indiana, against such manager, officer or employe, or against any person acting in her or his behalf, and it is hereby made the duty of the Governor and Board of Managers, upon satisfactory proof of such interest, to immediately remove such manager, officer or employe so offending, and to report the facts to the Attorney-General, who shall take such legal steps in the premises as he may deem expedient.

8265. (6172.) *Annual Report*. 10. Said Board of Managers shall, on or before the first day of January in each year, after the institution is open for the reception of inmates, make to the Governor a full and detailed report of their doings as such managers, and of the receipts and expenditures of such institution, with such other information relating to the condition of the institution and its inmates, and the results attained, as may be interesting or useful to the public; which report shall be communicated by the Governor to the General Assembly at the next succeeding session thereof.

8273. (6180.) *Vicious Girls Received for Reformation*. 11. Whenever such institution shall have been proclaimed to be open for the reception of girls in the reformatory department thereof, it shall be lawful for said Board of Managers to receive into their care and management in the said reformatory department, girls under the age of fifteen years, who may be committed to their custody, in either of the following modes:

First. When committed by any judge of the circuit court, either in term time or in vacation, on complaint and due proof by the parent or guardian that by reason of her incorrigible or vicious conduct, she has rendered her control beyond the power of such parent or guardian and made it manifestly requisite that from a regard to the future welfare of such infant, and for the protection of society, she shall be placed under such guardianship.

Second. When such infant shall be committed by such judge as aforesaid, upon complaint of any citizen, and due proof of such complaint, that such infant is a proper subject for the guardianship of such institution, in consequence of her vagrancy or incorrigible or vicious conduct, and that from moral depravity or otherwise of her parent or guardian in whose custody she may be, such parent or guardian is incapable or unwilling to exercise the proper care or discipline over such incorrigible or vicious infant.

Third. When such infant shall be committed by such judge as aforesaid, on complaint and due proof thereof, by the township trustee of the township where such infant resides, that such infant is destitute of a suitable home and adequate means of obtaining an honest living, or that she is in danger of being brought up to lead an idle or immoral life.

8275. (E. S. 1998.) *Commitments*. That commitments under existing law or laws which may be hereafter passed to the re

formatory department of the institution, mentioned in Section 1 of this act, may be made to read, for girls not under eight nor over fifteen years of age.

8276. (E. S. 1999.) *Detention and Release.* That all girls who may be now or hereafter committed to said Reform School by virtue of any existing law or laws, which may be hereafter passed shall be detained in or committed to said Reform School until they respectively attain the age of twenty-one years: Provided, That the Board of Managers may release on parole all such girls at the age of eighteen years under such regulations as they may provide, which release shall remain in force during the good behavior of such girl or girls.

(1875, p. 73. In force August 24, 1875.)

8277. (6182.) *Discretion to Send to Jail or Reformatory.* If any girl under the age of sixteen years shall, under existing laws, or under those which may hereafter be enacted, be tried by any court of competent jurisdiction for any criminal offense for which she might, on conviction, be sentenced, for any period of time, to imprisonment in the proper county jail, it shall be competent for the court or jury by which the case may be tried, at their discretion, on conviction, to substitute confinement in the Reformatory Department of this institution created by this act for imprisonment in the county jail; and such confinement shall be until the infant attains the age of eighteen years, unless sooner lawfully discharged by the Board of Managers or otherwise.

Females over fifteen years of age may be sent to the county jail when the law so provides.—Ruble v. State, 52 Ind. 358.

(1869 S., p. 61. In force May 13, 1869.)

8278. (6183.) *May be Sent on Report of Grand Jury.* If any girl under the age of fifteen years shall be accused before the grand jury of any crime or misdemeanor, and the charge is supported by evidence sufficient to put the accused upon trial, the grand jurors, in their discretion, instead of finding an indictment against the accused, may make a return to the court that it appears to them that the accused is a suitable person to be committed to the guardianship of the Reformatory Department of the institution, created by this act; and the court may, thereupon, order such commitment until the infant shall attain the age of eighteen years, unless sooner discharged as aforesaid, if satisfied from evidence

adduced that such commitment ought to be made: Provided, however, That the production of evidence may be weighed by the parent or guardian.

8279. (6184.) *May Send to Reformatory on Arrest of Trial.* If any girl under the age of fifteen years shall be arraigned for trial before any court of competent jurisdiction, charged with the violation of any criminal law of this State, the judge of such court may, with the consent of the counsel, arrest at any stage of the cause, any further proceedings on the part of the prosecution, and commit the accused to the Reformatory Department of said institution until she shall attain the age of eighteen years, unless sooner lawfully discharged by the Board of Managers or otherwise.

8280. (6185.) *May Send on Habeas Corpus.* When any girl under the age of fifteen years shall be imprisoned to await her trial on any charge punishable with imprisonment, such girl may be brought before the proper circuit judge, in term time or vacation, on a writ of habeas corpus, and shall be entitled to a private examination and trial before such judge with a view to the question whether such infant ought to be committed to said institution. Only the parties to the case and the guardian or parent of the accused shall be admitted to such examination, unless one of the parents, the guardian or legal representatives of the accused shall demand a public trial; in which case all proceedings shall be in the usual manner. And upon such hearing it shall be competent for such judge to make an order committing the accused to the Reformatory Department of said institution, until she attains the age of eighteen years, unless sooner lawfully discharged by the Board of Managers or otherwise.

8281. (6186.) *Order of Commitment.* Whenever any infant under the age of fifteen years shall be committed to the Reformatory Department of said institution under the provisions of this act, the order of commitment shall be signed by the judge by whom it is made and authenticated by the clerk of the proper court, under the seal of the court. Such order shall state the name and age of the infant and the section of the act under which she may be committed, without setting forth or mentioning the offense with which she may be charged; and no other or further record of the proceedings shall be made, unless demanded by the infant or her parent or guardian. If, however, there shall be a regular trial and conviction under Section 21 of this act (p. 6182), the usual rec-

ord shall be made and a certified copy of the judgment shall constitute the order of commitment.

8282. (6187.) *Specifications of Commitment.* When a commitment shall be made under either of the specifications of Section 19 of this act (p. 6180), the order of commitment shall also specify under which of the clauses or specifications of said section such order is made.

8283. (6188.) *Regulations for Discharge.* The Board of Managers of said institution may provide by general regulation for the discharge of girls committed to the Reformatory Department of said institution under any section or provision of this act, and such discharge shall be made by the superintendent, with the approval of the board.

8264. (6189.) *Escape.* Any person who may be committed to or confined in either department of said institution, and who may escape therefrom, may be arrested and returned to said institution by any officer or citizen, on the written order or request of the superintendent or Board of Managers.

8265. (6190.) *Employment and Instruction.—Apprenticeship.* The superintendent of said institution shall have power to place any girl committed to the Reformatory Department thereof at any employment, for account of the institution or otherwise, and cause her to be instructed in such branches of useful knowledge as such superintendent may think proper; and shall also have the power to bind out such infant with her consent during her minority, and may execute indentures of apprenticeship for such infant which shall have like force and effect as other indentures of apprenticeship made under the laws of this State.

Every indenture of apprenticeship so made before the delivery thereof, shall be approved by the Board of Managers of such institution; which approval shall be endorsed on the indenture, and signed by the president of the board. In case any girl so apprenticed shall prove untrustworthy or unreformed, the superintendent may permit her to be returned to the institution to be held in the same manner as before such apprenticeship, whereupon the indenture may be cancelled by order of the board. If such infant shall have an unsuitable master or mistress, the superintendent may, with the approval of the board, take her back into the said institution with or without the consent of such master or

mistress; and thereupon the indenture shall be cancelled. All indentures so made shall be filed and kept in said institution, and it shall not be necessary to file or record them in any other office or place, but the master or mistress of any girl so apprenticed shall, on request, be entitled to a copy of her indenture.

8286. (6191.) *Payment of Expenses.* If any girl shall be committed to the Reformatory Department of said institution upon the complaint or at the instance of her parent or guardian, the cost of transporting such girl to the institution and the cost of her subsistence and clothing, shall be paid by such parent or guardian, unless such parent is unable by reason of his or her poverty to pay the same, or unless such guardian has no funds, effects or estate of such infant out of which the same could be paid. The order of commitment shall in every case state whether the parent is able to pay the cost of the subsistence and clothing of the infant, or whether the guardian has any estate or effects of the infant, out of which such costs can be paid. The Board of Managers shall in every case estimate and fix the amount to be paid and the same shall be paid to the superintendent quarterly in advance.

8287. (6192.) *Estimates—County to Pay Half.* Said Board of Managers shall, with the approval of the Governor, estimate and determine as near as may be, the actual expense per annum of clothing and subsistence an infant committed to the Reformatory Department of said institution, and include a statement of such estimated price in each annual report. One-half of the cost of the keeping, according to such estimates, together with the entire cost of conveying such infant to the institution, shall be paid by the county from which such infant may be committed, except in cases where the cost of transporting such infant to the institution and her subsistence is chargeable to her parents or guardian under the last preceding section.

8288. (6193.) *Payment by County.* The expense which any county may be liable to pay for the clothing and subsistence of any girl committed to the Reformatory Department of said institution, under the provisions of this act, shall be paid by the board of county commissioners of such county into the State treasury on a certified statement in detail, of the amount due therefor from such county being transmitted by the superintendent of the institution through the treasurer of the State to the auditor of the proper county.

8290. (6195.) *Parent's Proceedings—Discharge.* If a parent, guardian, or master of any infant committed to the Reformatory Department of said institution, or any person occupying the position of parent or guardian in fact, or any relation by blood or marriage, not more remote than first cousin to such infant shall feel aggrieved by the commitment of such infant to such institution, he may make written application to the Board of Managers of said institution for the discharge of such infant, which application shall be filed with the superintendent, who shall inform the managers thereof; and the same shall be heard and determined by said managers at such time as they shall appoint for that purpose, not later than the next regular meeting of the board. Such applications shall state the grounds of the applicant's claim to the custody of the infant and the reasons why claiming such custody.

Within ten days after the hearing of such application the Board of Managers shall make and announce their decision thereon; and if they shall be of the opinion that the welfare of such infant would be promoted by granting the application, they shall make an order to that effect; otherwise they shall deny the application. The applicant, upon the denial of the application (by first giving security for the payment of all costs, the security to be approved by the clerk of the proper court), may commence an action in the circuit court of the county in which the institution may be situated, for the recovery of the custody of such infant against the managers of the institution. The complaint in such action shall state the facts and manner of the commitment, the making of the plaintiff's application to the managers for the custody of such infant, and the denial of such application by said managers, as well as the ground upon which the plaintiff relies for the recovery of the custody of such infant. Said action shall be prosecuted in like manner as other civil actions; and the cost thereof shall be paid by the plaintiff without reference to the result of the action, unless the court shall state in the judgment that refusal of managers to grant the application of the plaintiff was plainly unreasonable, or that the original commitment was manifestly unnecessary and improper.

8291. (6196.) *Governor May Commute.* Whenever any female under the age of fifteen years shall be sentenced by any court of competent jurisdiction to imprisonment in any county jail, it shall be lawful for the Governor on the application of such infant, parent, guardian or any other person, to commute her punishment

by substitution therefor the commitment of such infant to the Reformatory Department of the institution created by this act during the minority of such infant, unless sooner lawfully discharged by the Board of Managers, or otherwise.

8293. (6198.) *Instruction.* It shall be the duty of said Board of Managers to provide teachers and, as far as practicable, instruct the inmates of said institution in reading, writing, and arithmetic.

(1873, p. 139.) In force February 3, 1873.)

8294. (6199.) *Furnishing.* Whenever said institution, or any portion or department thereof, is ready to be furnished, the Board of Managers thereof shall present to the Auditor of State an itemized estimate of the articles needed for that purpose, with the estimated cost of each item or article, which estimate or statement shall be verified by the oath of the president of said Board. Upon the presentation of such estimate or statement to the Auditor of State, said Auditor shall, as soon as practicable, notify the Governor, Secretary and Treasurer of State of the filing of such statement, and if a majority of said officers shall be of the opinion that the proposed expenditure or some part thereof is necessary for the proper furnishing of said institution, or any part or department thereof, they shall direct in writing the Auditor of State to draw his warrant for the amount so estimated or such part or portion thereof as they may approve, on the Treasurer of State, who shall pay the same to the president of said Board, or to her order, out of any money in the treasury not otherwise appropriated.

8295. (6200.) *Current Expenses.* The current expenses of said institution shall be estimated for, allowed and drawn from the treasurer as follows: At the commencement of each month the superintendent shall prepare and verify by her oath an estimated itemized statement in writing of the amounts that will be required to meet the current expenses of such institution during such month and present the same to the Auditor of State, who shall notify the Governor, Secretary and Treasurer of State thereof; and if a majority of said officers shall approve and allow said estimate or a part thereof, they shall direct in writing the Auditor of State to draw his warrant on the Treasurer of State for the amount which may be so allowed by said State officers or by a majority of them; and said treasurer shall pay such warrant out of moneys in the treasury not otherwise appropriated. Every such

estimated itemized statement shall set forth the number of the inmates in each of the departments of the institution, and also the number of the officers and the persons employed therein.

8296. (6201.) *Semiannual Report.* The Board of Managers and superintendent of said institution shall, at the end of every period of six months (commencing with the first money which may be drawn from the treasury on any estimate made under either of the previous sections of this act), make an itemized report of the expenditure of the money which may have been so drawn from the treasurer under this act; and the auditor shall carefully examine such report and if in his opinion any money shall have been improperly expended in the purchase of unnecessary articles or by paying too much therefor or otherwise, said auditor shall immediately notify the Governor, Secretary and Treasurer of State, who in conjunction with such auditor shall immediately proceed to investigate the matter and in accordance with the decision of a majority of these officers the amount shall be audited: Provided, however, That before rendering an adverse decision upon any such amount or any part thereof, they shall notify the disbursing officer and allow her to present such explanations or adduce such testimony as she may desire in regard to the matter, and they shall have the same power to summon and require the attendance of witnesses as are given to the circuit courts of this State.

(Acts 1903.)

Commitments. Section 1. Be it enacted by the General Assembly of the State of Indiana, That Section 19 of the above entitled act be amended to read as follows: Section 19. Whenever said institution shall have been proclaimed to be open for the reception of girls in the Reformatory Department thereof, it shall be lawful for said Board of Managers to receive into their care and management in the said Reformatory Department, girls under the age of fifteen years who may be committed to their custody in either of the following modes, to wit:

First. When committed by any judge of the circuit court, either in term time or vacation, on complaint and due proof by the parent or guardian that by reason of her incorrigible or vicious conduct she has rendered her control beyond the power of such parent or guardian and made it manifestly requisite that from regard to future welfare of such infant, and for the protection of society, she should be placed under such guardianship.

Second. When such infant shall be committed by such judge as aforesaid upon complaint by any citizen and due proof of such complaint that such infant is a proper subject for the guardianship of such institution in consequence of her vagrancy or incorrigible or vicious conduct, and that from moral depravity or otherwise of her parent or guardian in whose custody she may be, such parent or guardian is incapable or unwilling to exercise the proper care or discipline over such incorrigible or vicious infant.

Sec. 2. All laws or parts of laws in conflict with this act are hereby repealed.

Sec. 3. Whereas, an emergency exists for the immediate taking effect of this act. The same shall be in force from and after its passage.

(Acts 1907, s. 525, p. 342.)

Juvenile Court—Proceedings. Section 1. Whenever a complaint is made or pending against a boy before he has completed his sixteenth year, or a girl before she has completed her seventeenth year, for the commission of any offense not punishable by law with imprisonment for life, or for which the penalty is death before any court or magistrate, it shall be the duty of such court or magistrate at once and before any other proceedings are had in the cause to give notice in writing of the pendency of said cause to the probation officer of his county, and forthwith to transmit all papers in said cause to the juvenile court with his certificate that jurisdiction in said cause is in said juvenile court.

If any child is found guilty of the offense charged against it or appears to be wilfully wayward and unmanageable, the court may commit him or her to the Indiana Boys' School, the Industrial School for Girls, or to any other State, penal or reformatory institution authorized by law to receive such boy or girl, subject to such conditions as are already provided by law for the reception of such children in said schools and institutions. And in all cases when a child shall be committed to State or other institution as above provided, the report of the probation officer shall be attached to the commitment and the child shall be placed in charge of the probation officer, or some person designated by the court, to be conveyed under his direction to the designated institution: Provided, That a woman be always sent with the girls so committed, and the person taking such child to the designated institution shall be allowed and paid for his or her actual expenses and no more.

where he or she is an officer of such juvenile court appointed by the court, and in all other cases the person taking such child to any institution shall be allowed and paid for his or her services the same fee and expenses as are paid to the sheriffs in like cases.

(Acts 1903, s. 1, p. 524.)

Separation of Industrial School for Girls and Woman's Prison. The Indiana Industrial School for Girls shall be separated from the Woman's Prison and there shall be constructed for the use of the Indiana Industrial School for Girls, buildings separate and widely apart from those now used by the Industrial School for Girls and Woman's Prison.

(Acts 1903, s. 13, p. 526.)

There is hereby appropriated from the State treasury, out of any funds not otherwise appropriated, one hundred and fifty thousand dollars (\$150,000), or so much thereof as may be necessary for the purchase of ground, erection and equipment of the buildings and expenses of the commissioners authorized by this act, one hundred thousand dollars of which shall be available on and after June 1, 1903, and remaining fifty thousand dollars shall be available after November 1, 1903. The work shall be completed and turned over to the Board of Managers of the Industrial School for Girls, hereinafter provided for, on or before October 31, 1904. When this shall have been done by said commissioners and final settlement made with the Auditor of State, then the duties of said commissioners shall end.

(Amendment to above section.)

Separation and Appropriation. There is hereby appropriated from the State treasury out of any funds not otherwise appropriated, two hundred thirty-five thousand dollars (\$235,000), or so much thereof as may be necessary for the erection and equipment of the buildings and expense of the commissioners authorized by this act; seventy-five thousand dollars (\$75,000) of which shall be available on and after June 1, 1905, and the remaining one hundred sixty thousand dollars (\$160,000) shall be available on and after November 1, 1905. The said buildings shall be erected and equipped and made ready for occupancy as soon as practicable and, when completed, turned over to the Board of Managers of the Industrial School for Girls provided for in this act.

(Acts 1907, s. 1, p. 138.)

Board of Trustees. The Board of Trustees of the Indiana Industrial School for Girls shall hereafter consist of four members. Upon the expiration of the term of any member of said board, or upon a vacancy occurring, the Governor shall appoint a successor to such member, except as herein otherwise provided.

All appointments shall be for a term of four years respectively, excepting in case of vacancy by death, removal or resignation, they shall be for the unexpired term. In making all appointments referred to in this section, the Governor, in addition to the qualifications hereinafter mentioned, shall take into consideration the political affiliation and belief of such appointees, so that not more than two of the same members of said boards, respectively, shall be members of the same political party or have the same political affiliation or belief.

Section 2. Name of Institution Changed. The name of the Indiana Industrial School for Girls is hereby changed to the Indiana Girls' School.

(Acts 1907, s. 4, p. 140.)

Trustees—Qualifications—Bond—Removal. The Board of Trustees of the Indiana Girls' School shall consist of women only. No other qualifications, except fitness and those hereinbefore specified, shall be considered in the making of such appointments. Each member of any such Board of Trustees hereafter appointed shall qualify by giving bond with surety in the sum of ten thousand dollars (\$10,000) to the approval of the Governor. At the meeting of said boards following the appointments provided for in Section one (1) of this act, they shall proceed to elect a president, vice-president, treasurer and secretary, and thereafter annually, the organization shall be at the April meeting of said board. Such treasurer shall qualify by executing a bond in the sum of fifty thousand dollars (\$50,000), with surety to the approval of the Governor. The Governor may remove any of such trustees for misconduct or neglect of duty after an opportunity to be heard upon written charges. The Board of Trustees of any institution shall have the right to condemn property for the convenience or the necessary purposes of such institution. Condemnation proceedings shall be conducted pursuant to the statutes relating to the exercise of the power of eminent domain.

Compensation—Interest in Contracts. Such trustees shall receive as compensation \$300 a year each, and their reasonable ex-

penses, not to exceed \$125 a year each, which shall be paid quarterly as other expenses of the institution are paid. No person shall be eligible to be appointed a member of any of the boards of trustees referred to in this act, who is a contractor with the institution of whose board he or she is a member, or who is interested either directly or indirectly in any contract with or in furnishing any of the supplies for such institution, and if any person appointed under the provisions of this act shall become so interested during her or his term of office, such interest shall vacate his or her office, and his or her successor shall be immediately appointed as hereinafter provided to fill his or her unexpired term.

Employes. All officers and employes of each institution shall be selected and appointed by the superintendent or head of the institution and shall be removable at his or her pleasure, and all such officers and employes shall be appointed, regardless of political or religious affiliation, on the basis of fitness, after examination as to their qualifications, for the duties to be performed under such rules and regulations as may be prescribed by the board. The annual compensation of superintendent, or head of an institution and the number of officers and employes, their duties and compensations, shall be fixed by the Board of Trustees at its discretion, and said trustees are hereby forbidden to solicit or request, or in any way interfere with the appointment or discharge of any officer or employe.

Supplies—Purchase—Bids. In the purchase of all supplies that enter into the maintenance of any of the institutions covered by this act, it shall be the duty to invite competitive bids through sealed proposals to the president of the board of each institution, and the lowest and best responsible bidder shall be awarded the contract, and the same provision shall apply to the construction and equipment of all buildings for any such institution.

Public notice of such bids shall be given by publication in the two leading newspapers in the county where such institution is located, and otherwise if considered beneficial. If such board deems it advisable and in the interest of economy to buy certain articles in quantity to last for a longer period, it shall have the right to do so. Such fact, however, shall be particularly stated in the notices. Blank bids shall be furnished for all applicants, but bids shall not be rejected because not contained on such form.

Any or all bids may be rejected.

Annual Reports. Annual reports, uniform in character, shall be made by such boards to the Governor, and shall be printed.

Such institutions shall be conducted upon a thorough, non-partisan basis.

(Acts 1907, p. 669.)

Appropriation. Maintenance, thirty-eight thousand dollars, and one hundred fifty dollars per capita per annum for each person actually present over a daily average number of two hundred and fifty-three girls each month, which sum is hereby appropriated out of any money in the treasury not otherwise appropriated; said excess amount to be approved by the Board of State Charities. Discharge, clothing and parole, seven hundred dollars; library, three hundred dollars. Specific: One new cottage, twenty-five thousand dollars; two employes cottages for men, at two thousand dollars each, four thousand dollars; cow barn and horse barn, three thousand dollars; storehouse and cold storage, six thousand five hundred dollars; fence, two thousand dollars; hennery and piggery, five hundred dollars; grading walks, drives, roads, improving grounds and planting trees, five thousand dollars; furnishing and installing boiler, engine generator, switchboard and all necessary appliances, equipments, material and labor, five thousand seven hundred and fifty dollars; one standpipe, two thousand dollars; live stock, vehicles, harness, implements and necessary utensils, three thousand dollars, the same to be available immediately.

Thirty thousand dollars to be expended in furnishing and equipment of buildings now or hereafter to be constructed, to be available upon the taking effect of this act: Provided, That out of such sum of thirty thousand dollars, six thousand dollars or so much thereof as may be necessary, shall be used for paying for pumps, air-lift and equipment, architect's fees, cistern, salary of superintendent of construction and such unpaid expenses of the commissioners as are authorized by law.

(Acts 1908, s. 552, p. 9. Special session.)

Appropriations. Regular and Specific. Regular: Maintenance for the fiscal year ending September 30, 1908, eight thousand dollars. Specific: For heating and water line from new cottage to the power house, seven thousand dollars; for plumbing, sewerage, electric lighting, cistern and equipment for new cottage, four thousand dollars; for furnishings for new cottage, three thousand dollars; for completion and equipment of storehouse and cold storage plant, two thousand dollars; for the repair and the completion of

the sewerage system, five thousand dollars. All of said appropriations are hereby made immediately available and all of said specific appropriation shall continue to be available until September 30, 1909.

(Acts 1908, s. 557, p. 12.)

Appropriations—Balances Available. Section 1. Be it enacted by the General Assembly of the State of Indiana, That the unexpended balances remaining in the State treasury of the specific appropriations made by the regular session of the General Assembly of 1907, for the following specific purposes, viz., Indiana Girls' School: One new cottage, pumps, airlift and equipment, cow barn and horse barn, storehouse and cold storage; be and the same are hereby continued available for the purposes for which said appropriations were made until September 30, 1910.

Emergency. Sec. 2. As there is an emergency for this act, the same shall be in force from and after its passage and approval.

(Acts 1909. Approved February 9, 1909.)

Transfer of Funds. Section 1. Be it enacted by the General Assembly of the State of Indiana, That the sum of six thousand dollars (\$6,000) now in the State treasury to the account of the commissioners of the Indiana Girls' School, for pumps, airlift and equipment, architect's fees, cistern, salary of superintendent of construction, and such unpaid expenses of said commissioners as are authorized by law as appropriated by Section 4, page 192, Acts 1907, shall be a part of the general funds of the State, and the said sum is hereby transferred to the general fund, and shall not be further available.

(H. 370. Approved March 8, 1909.)

Commitments. Section 1. Be it enacted by the General Assembly of the State of Indiana, That hereafter no girl under the age of ten years shall be committed to the Indiana Girls' School and that the maximum age for such commitments is hereby extended to eighteen years. Such girls shall be committed to the custody of the Board of Trustees of the Indiana Girls' School until they respectively attain the age of twenty-one years, and shall be detained in said school until twenty-one years of age unless sooner released by the board as hereinafter provided. No commitment shall be for a shorter period than until such girl shall attain respectively the age of twenty-one years.

Physical Condition. Sec. 2. No girl shall be committed to said school who is not of sound intellect and free from contagious diseases, or who is subject to epileptic or other fits; and she must be possessed of that degree of bodily health which would render her a fit subject for the discipline of said school. And it shall be the duty of the court committing her to cause said girl to be examined by a reputable county physician, who will certify to the above facts, which certificate shall be forwarded to the school with the commitment.

Release of Inmates. Sec. 3. Whenever the Board of Trustees shall deem it for the best interest of any girl in its custody, it shall instruct the superintendent of said school to release such girl on trial as soon as a suitable home is found for her. One or more women shall be employed as visiting agents for the school, whose duty it shall be, under the direction of the superintendent, to find homes for the girls so released, and visit them thereafter. No girl shall be placed in a home which has not been previously investigated by such agent and a full report thereof made to the superintendent. Such agent shall visit such girls as often as the superintendent shall deem necessary, to ascertain whether they are properly placed, and shall from time to time make to the superintendent full reports of all investigations and visits made by her. It shall be the duty of the superintendent to recall any girl who may not conduct herself properly, or who does not have a suitable home.

Fugitive—Arrest. Sec. 4. Any fugitive from said Indiana Girls' School or from the home in which she has been placed, may be arrested and returned to said institution by any officer or citizen.

Commutation of Sentence. Sec. 5. Whenever any girl under the age of twenty-one years shall be sentenced, by any court of competent jurisdiction, to imprisonment in the county jail, the Woman's Prison, or the correctional department of the Woman's Prison, it shall be lawful for the Governor, on the application of such girl, or of her parents or guardian, to commute the punishment by substituting therefor the commitment of such girl to the Indiana Girls' School until she attains the age of twenty-one years, unless sooner discharged by the Board of Trustees under the regulations provided by law. But should such girl after being sent to said institution, persist in a depraved course, or escape therefrom, it shall be in the power of the Governor to revoke said commuta-

tion, and to remand her to the institution from whence she came, to serve out her unexpired term, and the time spent by her in the Indiana Girls' School, or while a refugee therefrom, shall not be considered as part of her original commitment.

Rules—Penalty. Sec. 6. The Board of Trustees shall adopt rules for the conduct of the girls legally committed to their custody and also for their release and after-supervision, not inconsistent with this act. Any person who is convicted in any court of competent jurisdiction of causing or encouraging any such girl to violate any of said rules, shall be deemed guilty of a misdemeanor and shall be fined in any sum not exceeding five hundred dollars (\$500) or imprisonment in the county jail or workhouse for a period not exceeding six (6) months, or punishment by both such fine and imprisonment.

Repeal. Sec. 7. All laws or parts of laws in conflict with this act are hereby repealed.

Appropriations. For the Indiana Girls' School, at Indianapolis. Regular: Maintenance, fifty three thousand dollars, and one hundred seventy-five dollars per capita per annum for each person actually present over a daily average number of two hundred thirty-five girls each month, which sum is hereby appropriated out of any money in the treasury not otherwise appropriated; said excess amount to be approved by the Board of State Charities. Industrial department, four thousand five hundred dollars; discharge, clothing, and parole, one thousand five hundred dollars; library, three hundred dollars. Specific: Additional maintenance, fifteen thousand dollars, to be available April 1, 1909; cement walks, one thousand dollars, available April 1, 1909; grading and drives, five hundred dollars; electric lighting for campus, three thousand five hundred; three pianos, five hundred dollars; repairs, four thousand dollars; root cellar, one thousand dollars; addition to boiler and coal house, five thousand dollars; one new boiler, feed water heater, pump and piping, one thousand, five hundred dollars; brick and concrete stack breeching, etc., four thousand five hundred dollars; resetting three boilers and setting one new boiler, one thousand four hundred dollars; changes in old building and girders in north wall, one thousand dollars; elevating railroad track, eight hundred dollars; inspection, engineering and incidental expenses, four hundred dollars.

(H. 408. Approved March 4, 1911.)

Appropriations—Regular. Indiana Girls' School. For the Indiana Girls' School at Indianapolis: Maintenance, including discharge and parole, library and industrial supplies, seventy-five thousand dollars, and two hundred six dollars per capita per annum for each person actually present over a daily average number of three hundred nineteen girls each month, which sum is hereby appropriated out of any money in the treasury not otherwise appropriated; said excess amount to be approved by the Board of State Charities. Repairs, two thousand five hundred dollars.

For the Indiana Girls' School at Indianapolis: Septic tank, one thousand six hundred dollars; implement house, two thousand dollars, to be available October 1, 1912.

(H. 102. Approved March 6, 1911.)

Indiana Girls' School—Commitment—Transfer. Sec. 1. Be it enacted by the General Assembly of the State of Indiana, That Section 1 of the above entitled act be amended to read as follows: Section 1. Hereafter no girl under the age of ten years shall be committed to the Indiana Girls' School, and the maximum age for such commitment is hereby extended to eighteen years. Such girls shall be committed to the custody of the Board of Trustees of the Indiana Girls' School to be confined by it at that institution or at such other place as may be designated by said Board of Trustees where they can be most faithfully and properly cared for and they shall be confined therein until they reach the age of twenty-one years unless sooner released by said Board of Trustees, subject to such rules and regulations as said Board of Trustees may establish.

No commitments shall be for a shorter period than until such girls shall attain respectively the age of twenty-one years. The Board of Trustees shall have the power with the consent of the Governor, to transfer temporarily to the Indiana Woman's Prison, any girl who has been committed for crime and who is more than eighteen years of age and who is apparently incorrigible and whose presence in the Indiana Girls' School appears to be seriously detrimental to the welfare of the institution, and such trustees may by written requisition require the return to the Indiana Girls' School of any girl who may have been so transferred. Each girl transferred to said Indiana Woman's Prison shall be held therein and subject to all the rules and discipline of such Indiana Woman's Prison until she shall reach the age of twenty-one years.

unless recalled to the Indiana Girls' School, as herein provided, by the Board of Trustees, and it shall be the duty of the superintendent of the Indiana Woman's Prison on behalf of the Board of Trustees of said last named institution, to receive such girls as may be transferred thereto and properly care for them until such time as their return may be asked for by the Board of Trustees of the Indiana Girls' School, or until expiration of sentence. All costs in making such transfer shall be borne by the Indiana Girls' School. All commitments to the Indiana Girls' School shall be made in the following form:

ORDER OF COMMITMENT.

State of Indiana.....County, ss:

Be it remembered, That on the.....day of
....., A. D. 19...., application was made to the
undersigned, judge of the juvenile court of.....county,
State of Indiana, by.....for the commitment
of.....to the custody of the Board of
Trustees of the Indiana Girls' School, and upon due proof, I do find that
said.....is a suitable person to be
committed.

It is therefore ordered that the application of the said.....
be granted; that the said.....be, and is
hereby, committed to the custody of the Board of Trustees of the Indiana
Girls' School, to be confined by it at that institution or at such other place
as may be designated by said Board of Trustees where she can be most
faithfully and properly cared for, and that she shall be confined therein
until she reaches the age of twenty-one years, unless sooner released by
said Board of Trustees, subject to such rules and regulations as said Board
of Trustees may establish; it is further ordered that one-half of the esti-
mated cost of keeping her while an inmate of the institution, together with
the entire cost of conveying her thereto, be paid by.....
county, as provided by law.

I find that said girl is charged with (state the charge explicitly).....
.....
.....
.....
That she was born at.....on the....day of.....
A. D. 19..... That her father's name and residence is.....
and his occupation is..... That her mother's name and resi-
dence is....., and her occupation is.....
That the names and residences of her near relatives, or of her guardians,
are as follows:

In witness whereof, I have hereunto subscribed my name and caused

to be affixed the seal of said court, at.....this....day of
....., A. D. 19.....

..... judge of the juvenile court of.....
.....county.

Attest:

....., clerk of the juvenile court.

Examination Before Commitment. Sec. 2. That Section two (2) of the above entitled act be amended to read as follows: Section 2. No girl shall be committed to said school who is epileptic, insane or feeble-minded, or a paralytic or who has a contagious disease.

She must be possessed of that degree of bodily health which will render her a fit subject for the discipline of said school. It shall be the duty of the court committing her to cause said girl to be examined by a reputable physician who shall certify to the above facts, which certificate shall be forwarded to the school with the commitment. The court shall also furnish a statement of such facts as can be ascertained concerning the personal and family history of the girl. If it shall develop within six months after a girl is committed to this institution that she is epileptic, insane, feeble-minded, a paralytic, or pregnant, such girl may be returned to the county from which she is committed: *Provided*, If a person is believed to be epileptic, insane or feeble-minded, the superintendent shall call the physician of the institution and one other physician experienced in the care of epileptic, insane or feeble-minded; or in the case of one believed to be feeble-minded, may call the superintendent of the Indiana School for Feeble-minded Youth, instead of the last named physician, and these three shall agree before such child shall be returned to the county.

Trustees—Rules—Penalty. Sec. 3. That section six (6) of the above entitled act be amended to read as follows: Section 6. The Board of Trustees shall adopt rules for the conduct of the girls legally committed to their custody and also for their release and after-supervision until twenty-one years of age, not inconsistent with this act.

Any person who is convicted in any court of competent jurisdiction of causing or encouraging any such girl to violate any of said rules shall be deemed guilty of a misdemeanor and shall be fined in any sum not exceeding five hundred dollars (\$500) to which may be added imprisonment in the county jail or workhouse for a period not exceeding six (6) months.

THE THIRTY-SEVENTH ANNUAL REPORT

OF

PURDUE UNIVERSITY

FOR

The Year Ending June 30, 1911

INDIANAPOLIS :

WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING

1912

THE STATE OF INDIANA,

EXECUTIVE DEPARTMENT,

DECEMBER 26, 1911.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,

INDIANAPOLIS, January 9, 1912.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,

Auditor of State.

JANUARY 25, 1912,

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,

Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, January 26, 1912.

L. G. ELLINGHAM,

Secretary of State.

Received the within report and delivered to the printer January 26, 1912.

EDD DONNELL,

Clerk Printing Board.

LETTER OF TRANSMITTAL.

Hon. Thomas R. Marshall, Governor of Indiana:

I herewith transmit the annual report of the President of Purdue University for the year ending June 30, 1911; also the annual financial statements of the Secretary and Treasurer of the Board of Trustees.

Respectfully,

ADDISON C. HARRIS,
President of the Board of Trustees.

To the Board of Trustees of Purdue University:

Herewith are submitted the annual reports of the President and other officers of Purdue University for the year ending June 30, 1911, as required by Act of Congress, approved July 2, 1862, under which the institution was organized. The reports include the following sections:

- I. The Organization of the University.
- II. History and Description of the University.
- III. Report on the Work and Progress of the University for 1910-1911. 1, The Departments of Instruction; 2, The Agricultural Experiment Station; 3, The Farmers' Institutes; 4, The Department of Agricultural Extension.
- IV. Permanent Improvements and Donations.
- V. Legislation Affecting the University.
- VI. The Needs of the University.
- VII. Financial Report of the Treasurer and Secretary of the Board of Trustees.

Respectfully,

W. E. STONE,
President of the University.

DECEMBER 20, 1911.

I. ORGANIZATION OF PURDUE UNIVERSITY, 1910-1911.

BOARD OF TRUSTEES.

ANDREW A. ADAMS.....	Columbia City
GEORGE ADE.....	Brook
CHARLES DOWNING.....	Greenfield
ADDISON C. HARRIS.....	Indianapolis
CYRUS M. HOBBS.....	Bridgeport
GEORGE A. JAMISON.....	Lafayette
CHARLES MAJOR.....	Shelbyville
HENRY A. MILLER.....	Montmorenci
JOSEPH D. OLIVER.....	South Bend

Officers of the Board.

ADDISON C. HARRIS.....	President
ANDREW A. ADAMS.....	Vice-President
EDWARD A. ELLSWORTH.....	Secretary
JAMES M. FOWLER.....	Treasurer

Executive Committee.

ADDISON C. HARRIS,	JOSEPH D. OLIVER,
CHARLES MAJOR.	

Auditing Committee.

CHARLES DOWNING,	HENRY A. MILLER,
GEORGE A. JAMISON.	

Committee on Agriculture.

GEORGE ADE,	CHARLES DOWNING,
HENRY A. MILLER.	

Committee on Horticulture.

CYRUS M. HOBBS,	GEORGE A. JAMISON,
ANDREW A. ADAMS.	

OFFICERS OF ADMINISTRATION.

WINTHROP ELLSWORTH STONE, PH. D., LL.D.,
President of the University.

STANLEY COULTER, PH. D., LL.D.,
Secretary of Faculty; Dean School of Science.

CHARLES HENRY BENJAMIN, M. E., D. ENG.,
Dean of the Schools of Engineering.

JOHN HARRISON SKINNER, B. S.,
Dean of the School of Agriculture.

GEORGE IRVING CHRISTIE, B. S. A.,
Superintendent of Agricultural Extension.

WILLIAM CARROLL LATTA, M. S.,
Superintendent of Farmers' Institutes.

ARTHUR GOSS, M. S., A. C.,
Director of the Agricultural Experiment Station.

WILLIAM MURRAY HEPBURN, A. M.,
Librarian of the University.

EDWARD HATTON DAVIS, S. B.,
Registrar of the University.

EDWARD AUGUSTUS ELLSWORTH,
Bursar of the University.

CORPS OF INSTRUCTORS.

FACULTY.

- CLINTON CHARLES ALBRIGHT, C. E., Assistant Professor of Civil Engineering.
- THOMAS GREENE ALFORD, A. M., Professor of Mathematics.
- JOSEPH CHARLES ARTHUR, D. Sc., Professor of Vegetable Physiology and Pathology.
- EDWARD AYRES, A. M., Professor of Rhetoric.
- HERMAN BABSON, A. M., Ph. D., Professor of German.
- WILLIAM HUNT BATES, A. M., Ph. D., Assistant Professor of Mathematics.
- CHARLES HARRISON BECKETT, A. B., Associate Professor of Mathematics.
- CHARLES HENRY BENJAMIN, M. E., D. Eng., Dean of the Schools of Engineering.
- PHILIP SHERIDAN BIEGLER, B. S. E., Assistant Professor of Electrical Engineering.
- SEVERANCE BURRAGE, S. B., Professor of Sanitary Science.
- HENRIETTA WILLARD CALVIN, B. S., Professor of Household Economics.
- GEORGE WILKINSON CASE, B. S., Assistant Professor of Civil Engineering.
- GEORGE IRVING CHRISTIE, B. S. A., Professor of Agricultural Extension.
- ARTHUR WILLIAMS COLE, B. S., M. E., Assistant Professor of Mechanical Engineering.
- SAMUEL DICKEN CONNER, M. S., Assistant Professor of Agricultural Chemistry.
- STANLEY COULTER, Ph. D., LL. D., Professor of Biology; Director of Biological Laboratories; Dean of the School of Science.
- ROBERT ALEXANDER CRAIG, D. V. M., Professor of Veterinary Science.
- PAULINE MARIOTTE-DAVIES, Ph. D., Professor of French.
- EDWARD HATTON DAVIS, S. B., Associate Professor of Economics; Registrar.
- RICHARD GUSTAVUS DUKES, M. E., Professor of Applied Mechanics.
- HOWARD EDWIN ENDERS, M. S., Ph. D., Assistant Professor of Zoology.
- LOUIS EUGENE ENDSLEY, M. E., Associate Professor of Railway Mechanical Engineering.
- PERCY NORTON EVANS, Ph. D., Professor of Chemistry; Director of Chemical Laboratory.
- ERVIN SIDNEY FERRY, B. S., Professor of Physics.
- MARTIN LUTHER FISHER, B. S., Professor of Crop Production.
- LAURA ANNE FRY, Professor of Industrial Art.
- HARRY OTTO GARMAN, C. E., Associate Professor of Civil Engineering.
- MICHAEL JOSEPH GOLDEN, M. E., Professor and Director of Laboratories of Practical Mechanics.

- ARTHUR LAWRENCE GREEN, Ph. C., Professor of Chemistry in School of Pharmacy.
- CHARLES FRANCIS HARDING, E. E., Professor of Electrical Engineering; Director of Electrical Laboratories.
- WILLIAM KENDRICK HATT, C. E., Ph. D., Professor of Civil Engineering; Director of Materials' Testing Laboratory.
- JOHN HEISS, A. M., Assistant Professor of German.
- JAMES DAVID HOFFMAN, M. E., Professor of Engineering Design.
- OTTO FRED HUNZIKER, M. S. A., Professor of Dairy Husbandry.
- ALPHA PIERCE JAMISON, M. E., Professor of Mechanical Drawing.
- ARTHUR TABER JONES, B. S., Assistant Professor of Physics.
- CHARLES BERNARD JORDAN, Ph. C., B. S., Professor and Director of School of Pharmacy.
- ALFRED MONROE KENYON, A. M., Professor and Head of Department of Mathematics.
- WILLIAM CARROLL LATTA, M. S., Professor of Agriculture.
- LLEWELLYN V. LUDY, M. E., Professor of Mechanical Engineering.
- EMMA MONT. McRAE, A. M., Professor of English Literature; Lady Principal.
- EDWARD G. MAHIN, M. S., Ph. D., Associate Professor of Chemistry.
- WILLIAM MARSHALL, M. S., Ph. D., Associate Professor of Mathematics.
- ARTHUR RENWICK MIDDLETON, A. B., Ph. D., Assistant Professor of Chemistry.
- CHARLES RUBY MOORE, B. S., E. E., Assistant Professor of Electrical Engineering.
- THOMAS FRANCIS MORAN, A. B., Ph. D., Professor of History and Political Economy.
- WILLIAM McEWEN NYE, B. S., Assistant Professor of Farm Mechanics.
- HYLON THERON PLUMB, B. S., E. E., M. S., Associate Professor of Electrical Engineering. *Absent on leave.*
- ALFRED PETER POORMAN, B. S., A. B., C. E., Assistant Professor of Applied Mechanics.
- HARRISON JACKSON PRICE, A. B., Captain 2d Infantry; Professor of Military Science and Tactics; Commandant of Cadets.
- JAMES HARVEY RANSOM, A. M., Ph. D., Professor of General Chemistry.
- GEORGE LUCAS ROBERTS, A. M., Professor of Education.
- ROBERT LEMUEL SACKETT, B. S., C. E., Professor of Sanitary and Hydraulic Engineering.
- HERBERT HENRY SCOFIELD, M. E., Assistant Professor in Materials Testing Laboratory.
- CAROLYN ERNESTINE SHOEMAKER, M. S., Associate Professor of English.
- JOHN HARRISON SKINNER, B. S., Professor of Animal Husbandry; Dean of the School of Agriculture.
- ALBERT SMITH, B. S., C. E., Professor of Structural Engineering.
- CHARLES MARQUIS SMITH, B. S., Assistant Professor of Physics.
- WILLIAM WESLEY SMITH, M. S. A., Assistant Professor of Animal Husbandry.
- JULIUS WILLIAM STURMER, Ph. G., Professor of Pharmacy.

OLIVER PERKINS TERRY, M. S., M. D., Assistant Professor of Physiology.

ALANSON NILES TOPPING, B. S., Associate Professor of Electrical Engineering.

JAMES TROOP, M. S., Professor of Horticulture and Entomology.

RALPH BROWN TRUEBLOOD, B. S., Assistant Professor of Practical Mechanics.

WILLIAM PAYSON TURNER, Professor of Practical Mechanics.

CICERO BAILEY VEAL, B. S., Assistant Professor of Machine Design.

JACOB WESTLUND, Ph. D., Professor of Mathematics.

ALFRED THEODOR WIANCKO, B. S. A., Professor of Agronomy.

RALPH BENJAMIN WILEY, B. S., C. E., Assistant Professor of Hydraulic Engineering.

CHARLES GOODRICH WOODBURY, M. S., Assistant Professor of Horticulture.

GILBERT AMOS YOUNG, M. E., M. S., Associate Professor of Mechanical Engineering.

INSTRUCTORS.

HARRY EARL ALLEN, B. S., Instructor in Animal Husbandry.

¹EDWARD ALFRED BLOOMFIELD, A. B., Instructor in English.

BEVERLEY WAUGH BOND, Ph. D., Instructor in Economics and History.

JESSE GEORGE BOYLE, B. S., Instructor in Horticulture.

FREDERICK JOHN BREEZE, B. S., Instructor in Biology.

JOSEPH HENDERSON CANNON, B. S., Instructor in Mathematics.

ELBERT HOWARD CLARKE, A. M., Instructor in Mathematics.

CIEMENT ELLIS CRAIG, M. S., Instructor in Agronomy.

PERRY HOWARD CRANE, B. S., Instructor in Milk Production.

ALBERT HARTMAN DAEHLER, A. B., Instructor in English.

LESLIE LEROY DAVISON, M. A., Instructor in History and Economics.

HAROLD SHIELDS DICKERSON, B. S., E. E., M. E., Instructor in Engineering Laboratory.

EDWARD ELIAS, A. B., Instructor in German.

THOMAS TAYLOR EYRE, B. S., Instructor in Applied Mechanics.

HARRY FRANKLIN FORE, A. B., B. S., Instructor in English.

HELEN GOLDEN, M. S., Instructor in Practical Mechanics.

ERIC VIELE GREENFIELD, A. M., Instructor in German.

OTTO ALBERT GREINER, Ph. B., Instructor in German.

JOHN TEVIS GUNN, A. M., Instructor in German.

²WILLIAM TEMPLE HECK, B. S., Instructor in Engineering Laboratory.
Absent on leave.

GEORGE NISSLEY HOFFER, A. B., Instructor in Biology.

GLENN JAMES, A. B., Instructor in Mathematics.

JOHN DEMOSS JARVIS, B. S. A., Instructor in Dairying.

CLAUDE SYLVESTER JOHNSON, B. S., Instructor in Machine Design.

³FRANK DUNN KERN, M. S., Ph. D., Instructor in Cryptogamic Botany.

Absent on leave.

¹ From February 1, 1911.

² Resigned March 11.

³ From November 1.

OSCAR COLMAN KLIPSCH, M. E., Instructor in Mechanical Engineering.
 WILLARD ALFRED KNAPP, B. S., Instructor in Civil Engineering.
 CHARLES HERBERT LAWRENCE, B. S., M. E., Instructor in Applied Mechanics.

GEORGE HEYSER LIGHT, A. M., Instructor in Mathematics.
 ERNEST MERLE LITTLE, M. S., Instructor in Milk Production.
 JAMES HOMER LOWRY, B. S., Instructor in Civil Engineering.
 GEORGE WESLEY MUNRO, E. E., Instructor in Engineering Laboratory.
 ALLEN GRIFFITH PHILIPS, B. S., Instructor in Poultry Husbandry.
 JOHN CHURCH POTTER, E. E., Instructor in Telephone Engineering.
 BENEDICT FREDERICK RABER, B. S., Instructor in Machine Design.
 NELLIE PHILLIPS SAMSON, Instructor in Art.
 CLIFTON ERVIN SCHUTT, E. E., Instructor in Electrical Engineering.
 GLENN ALFRED SHOOK, A. B., Instructor in Physics.
 OSCAR WILLIAM SILVEY, A. B., Instructor in Physics.
 WILLIAM TEBFORD SMALL, B. S., Instructor in Electrical Engineering.
 LAWRENCE WILKERSON WALLACE, B. S., Instructor in Car and Locomotive Design.
 LUTHER CORNILIUS WEEKS, B. S., Ph.B., Instructor in Mathematics.
 WHEELER J. WELDAY, B. L., Instructor in English.
 HENRY ADELBERT WHITE, A. M., Instructor in English.
 WILLIAM ARTHUR ZEHRING, A. M., Instructor in Mathematics.

ASSISTANTS.

WAYNE STONER BELL, Assistant in Practical Mechanics.
 HOWARD HARTZLER BELTZ, B. S., Assistant in Physics.
 ETHEL ESTHER BERRY, B. S., Assistant in Household Economics.
 CECIL WAYNE BOYLE, A. B., Assistant in Chemistry.
 EMIL MARK DIEDRICH BRACKER, B. S., Assistant in Farm Mechanics.
 HERBERT STEVENSON BUSEY, Assistant in Practical Mechanics.
 CLIFFORD DOWNS BUSHNELL, B. S., Assistant in Practical Mechanics.
 RALPH ALVIN CHITTY, B. S., Assistant in Farm Crops.
 TRENMOR COFFIN, B. S., Assistant in Practical Mechanics.
 D. THORNTON CONROW, B. S., Assistant in Practical Mechanics.
 CHARLES LYONS COUGHLIN, B. S., Assistant in Engineering Laboratory.
 PAUL SPOTTS EMRICK, B. S., Assistant in Electrical Engineering.
 SILAS EDGAR FAUQUHER, B. S., Assistant in Chemistry.
 JOHN HENRY VANCE FINNEY, B. S., Assistant in Engineering Laboratory.
 RAYMOND LAY FRISBIE, A. B., Assistant in Chemistry.
 MERTON OTIS FULLER, C. E., Assistant in Civil Engineering.
 CARL FLINDT GOBBLE, B. S., Assistant in Animal Husbandry.
 GUY EVERETT GRANTHAM, A. B., Assistant in Physics.
 LESTER DAVISSON HAMMOND, A. M., Assistant in Chemistry.

¹ From November 1 to February 24.

² To January 1.

³ From March 2.

⁴ January 9 to March 9.

⁵ From November 28.

⁶ From October 1.

⁷ January 16 to March 16.

AUGUST HENNING, B. S., Assistant in Practical Mechanics.
 DEAN CLEMENT INGRAHAM, B. S., Assistant in Chemistry.
 *FREDERICK GRAY JACKSON, S. M., Assistant in Chemistry.
 CHARLES WYANT KRAMER, B. S., Assistant in Civil Engineering.
 JOHN F. LEAHY, Assistant in Military Department.
 *ROSCOE ELWOOD LOFTON, A. B., Assistant in Physics.
 *JOHN PARKE MEHLIG, M. S., Assistant in Chemistry.
 ADOLPH ANTON NEFF, B. S., Assistant in Machine Design.
 CARL WATSON PIPER, B. S., Assistant in Electrical Engineering.
 ROY ARDEN POCHEL, B. S., Assistant in Civil Engineering.
 PAUL LINCH ROBERTS, B. S., Assistant in Dairying.
 RAY ADAMS STEVENS, A. B., Assistant in Chemistry.
 OLUS JESSE STEWART, A. B., Assistant in Chemistry.
 ALBERT FREDERIC WAGNER, B. S., Assistant in Physics.
 *RAYMOND LEE WITHAM, E. E., Assistant in Electrical Engineering.
 WALTER CLARENCE YOKE, B. S., Assistant in Farm Mechanics.

SHOP ASSISTANTS.

JOHN JACOB DIETRICH, Assistant in Wood Shop.
 ROYAL BERTRAM GREGG, Assistant in Wood Shop.
 CHARLES ANDREW HAAG, Assistant in Machine Shop.
 OTIS PURCELL HERREMAN, Assistant in Machine Shop.
 JOHN FRANCIS KELLER, Assistant in Forge Room.
 LOUIS KELLER, Assistant in Forge Room.
 JESSE DAY TRUEBLOOD, Assistant in Wood Shop.
 MORTON TUMEY, Assistant in Foundry.
 JOHN ADAM VANCOURT, Assistant in Wood Shop.
 ROBERT ERNEST WENDT, Assistant in Foundry.

LIBRARY STAFF.

WILLIAM MURRAY HEPBURN, A. M., Librarian.
 *LILLIAN MABEL GEORGE, Assistant Librarian.
 LULU ARLOUINE HELPMAN, Assistant Librarian.
 *SARA ETTA JOHNSTON, A. M., Assistant Librarian.
 BLANCHE ANNIS MILLER, Assistant Librarian.

HUGH NICOL, Physical Director.
 RALPH R. JONES, Assistant Physical Director.

EVA LINN MACKAY, M. S., Organist.
 MARY IRWIN, President's Secretary.
 MAUDE PRICE HOLLIS, Assistant Registrar.

ARTHUR DUFFY, B. S., Superintendent of Buildings.
 PIERRE VANLANDEGHIM, Superintendent of Grounds.

¹ From October 10.

² To March 30.

³ To November 1.

⁴ October 7 to March 10.

⁵ From May 1.

⁶ To May 1

SPECIAL LECTURERS.**In Agriculture.**

MR. JOSEPH E. WING, Mechanicsburg, Ohio.

REV. A. B. STORMS, Indianapolis.

HON. C. W. FAIRBANKS, Indianapolis.

DR. J. C. LIPMAN, New Jersey Experiment Station.

MR. J. P. PRIGG, Daleville.

MR. H. C. PIERCE, United States Department of Agriculture.

DR. W. O. THOMPSON, President Ohio State University.

MRS. NELLIE KEDZIE JONES, Minneapolis, Minn.

THE AGRICULTURAL EXPERIMENT STATION.

SCIENTIFIC STAFF.

ARTHUR GOSS, M. S., A. C., Director.
JOSEPH CHARLES ARTHUR, D. Sc., Botanist.
GEORGE IRVING CHRISTIE, B. S. A., Agricultural Extension
ROBERT ALEXANDER CRAIG, D. V. M., Veterinarian.
OTTO FRED HUNZIKER, M. S. A., Chief of Dairy Husbandry.
WILLIAM JAMES JONES, JR., M. S., A. C., State Chemist.
JOHN HARRISON SKINNER, B. S., Animal Husbandry.
JAMES TROOP, M. S., Horticulturist.
ALFRED THEODOR WIANCKO, B. S. A., Agronomist.
JOHN FLACKLER ABBOTT, B. S. A., Assistant in Soil Improvement.
LUNA EVELYN ALLISON, B. S., Assistant in Botany.
SIDNEY PRENTISS ARMSBY, B. S., Deputy State Chemist.
SAMUEL DICKEN CONNER, M. S., Associate Chemist.
CLINTON OTIS CROMER, B. S., Associate Agronomist.
CARLETON CUTLER, B. S., Deputy State Chemist.
RALPH BARBOUR DEEMER, B. S., Deputy State Chemist.
PERRY HOWARD CRANE, B. S., Associate in Milk Production.
WILLIAM FREDERICK EPPLÉ, Ph. G., Assistant Dairy Chemist.
MARTIN LUTHER FISHER, B. S., Associate Agronomist.
MARY ALIDA FITCH, B. S., M. A., Assistant in Botany.
GEORGE MELROSE FRIER, B. S. A., Assistant in Extension Work.
FREDERICK DRIGGS FULLER, B. S., Chief Deputy State Chemist.
AARON GUY JOHNSON, B. S., Assistant Botanist.
FRANK DUNN KERN, M. S., Associate Botanist. *Absent on leave.*
FRANKLIN GEORGE KING, B. S. A., Associate in Animal Husbandry.
ERNEST MERLE LITTLE, M. S., Associate in Milk Production.
HERMAN HARRY MADAUS, B. S., Assistant in Veterinary Laboratory.
HORACE CARTER MILLS, B. S., Assistant in Dairy Husbandry.
CLAYTON ROBERTS ORTON, B. S., Assistant Botanist.
ALLEN GRIFFITH PHILIPS, B. S., Associate in Poultry Husbandry.
EDWARD GEORGE PROULX, M. S., Deputy State Chemist.
OLLIE EZEKIEL REED, B. S., Associate in Milk Production.
MORRIS WILFORD RICHARDS, M. S., Assistant Horticulturist.
HENRY PERLY RUSK, B. S., Assistant in Animal Husbandry.
GEORGE SPITZER, Ph. G., B. S., Dairy Chemist.
DAVID ORRIN THOMPSON, B. S. A., Animal Husbandry Extension Work.
JOSEPH WORCESTER WELLINGTON, B. S., Assistant Horticulturist.
REX ANTHONY WHITING, D. V. M., Animal Pathologist.
CHARLES GOODRICH WOODBURY, M. S., Associate Horticulturist.
WILFRED RULISON WRIGHT, B. S., Assistant in Dairy Bacteriology.

¹ To April 30.

² From November 1.

³ November 1 to February 24.

⁴ From October 1.

⁵ To September 20.

⁶ To September 30.

⁷ From December 1.

ADVISORY COMMITTEE.

D. F. MAISH, Frankfort.....	Corn Growers' Association
D. B. JOHNSON, Mooresville.....	Dairy Association
H. H. SWAIM, South Bend.....	Horticultural Society
T. A. COLEMAN, Rushville.....	Live Stock Breeders' Association
U. R. FISHEL, Hope.....	Poultry Fanciers' Association

**THE DEPARTMENT OF AGRICULTURAL
EXTENSION.**

GEORGE IRVING CHRISTIE, B. S. A., Superintendent.

WILLIAM CARROLL LATTA, M. S., in Charge of Farmers' Institutes.

GEORGE MELROSE FRIER, B. S. A., Extension Assistant.

GERTRUDE McCHEYNE, Lecturer on Domestic Science.

II. HISTORY AND DESCRIPTION OF THE INSTITUTION.

Purdue University originated in an Act of Congress approved July 2, 1862, appropriating public lands to the various States for the purpose of aiding in the maintenance of colleges for instruction in science and technology.

The State of Indiana accepted the provisions of the Act of Congress by an act of Legislature approved March 6, 1865, thus providing for the establishment and maintenance of the institution. Notable donations have been accepted in the same faith from citizens of Tippecanoe County, John Purdue, Martin L. Pierce, Eliza Fowler, and James M. Fowler; also from Amos Heavilon, of Clinton County.

Subsequent acts of Congress for the further endowment of the institution have been formally accepted by the Legislature of the State, which has also fixed the name and location of the University.

From the first, the institution has been under the control of trustees appointed either by the Legislature or the Governor. These trustees are responsible for all official acts, are subject to removal, and are in the strictest sense "trustees" of the State's interests.

The property of the institution is held in the name of the State and cannot be disposed of without legislation.

The plan and purpose of the University are—to provide liberal instruction in those arts and sciences relating to the various industries and professions, and to conduct investigations and disseminate information concerning the principles and applications of agricultural science.

The scope and work of the University are fixed by law as set forth in the five acts of Congress relating to the establishment and endowment of the institution, which have been accepted by the State of Indiana, as follows:

The act approved in 1862, appropriating lands, states that—

"The leading objects shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

The act approved in 1887, appropriates \$15,000 annually for the Experiment Station, and states that—

“In order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote such scientific investigation and experiment respecting the principles and applications of agricultural science, there shall be established,” etc.

The act of 1890 appropriates \$25,000 annually for maintenance, with the provision that it—

“Be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science, with special reference to their application to the industries of life, and to facilities for such instruction.”

The act of 1906 provides for an increased appropriation—

“For the more complete endowment and maintenance of agricultural colleges now established, or which may be hereafter established under the act of Congress approved March second, eighteen hundred and eighty-seven.”

The act of 1907 provides further for an increased appropriation—

“For the more complete endowment and maintenance of agricultural colleges now established, or which may hereafter be established in accordance with the act of Congress approved July 2, 1862, and the act of Congress approved August 30, 1890, the sum of \$5,000 in addition to the sums named in said act for the fiscal year ending June 30, 1908, and an annual increase of the amount of such appropriation thereafter for four years by an additional sum of \$5,000 over the preceding year.”

In accordance with the provisions of its foundation, the University offers the following courses of instruction:

1. In Agriculture—

Science and practice of agriculture; horticulture; entomology; agricultural chemistry; veterinary science; dairying; animal husbandry.

2. In Applied Science—

Biology; chemistry; physics; industrial art; sanitary science; forestry; household economics.

3. In Mechanical Engineering—

Shop practice; machine design; transmission of power; steam engineering; railway mechanical engineering; gas engineering; heating and ventilation.

4. In Civil Engineering—

Shop practice; railway engineering; structural engineering; hydraulic engineering; sanitary engineering.

5. In Electrical Engineering—

Shop practice; machine design; power generation and transmission; electric railway engineering; telephone engineering; illuminating engineering.

6. In Chemical Engineering—

Shop practice; chemistry; physics; applied electricity; mathematics; mechanics; steam engineering; materials testing.

7. In Pharmacy—

Pharmacy; chemistry; materia medica; prescription practice.

8. The following general departments of instruction are maintained in connection with the above—

English; mathematics; modern languages; history; economics; military science.

Instruction was begun at Purdue in 1874. The first class was graduated in 1875, since which time the instructional work of the institution has been continuous.

The grade of instruction is that of the standard college, requiring for admission the preparation of a commissioned high school course, and for graduation the completion of a four-years' course of study, for which the degree of Bachelor of Science is conferred.

About thirty-nine hundred students have been graduated from the institution and more than three times that number have received instruction for a longer or shorter period. The records of graduates show that to an unusual degree they are taking a prominent part in industries of every kind and are making practical contribution to their progress and development.

Tuition is free to residents of Indiana. Nonresidents pay an annual tuition fee of \$25, and all students pay certain fixed fees to cover the actual cost of materials and privileges furnished.

The instructional corps of the institution numbered this year one hundred and sixty-one.

The property of the University consists of 277 acres of land, 21 principal and 12 minor buildings, and a large collection of apparatus, machinery, library, furniture and live stock; in all valued at \$1,654,462, distributed as follows:

Grounds	\$120,000
Buildings	1,064,500
Apparatus and machinery.....	332,130
Furniture and fixtures.....	61,447
Library	55,000
Live stock	21,385

Besides its functions as an educational institution, the University is charged by law with the administration of various other important activities, and its organization, in addition to the departments of education, embraces two other distinct branches, viz.: The Farmers' Institutes, established by act of Legislature in 1889 for the purpose of organizing institutes of instruction in agriculture, horticulture, and allied subjects, are under the direction of the Trustees of the University, and the superintendent is a member of the University faculty. Also the Agricultural Experiment Station is an organic part of the University, made so by both Federal and State enactments, and works in close co-operation with other branches of the institution. The inspection and sale of commercial fertilizers and commercial feeding stuffs is assigned by law to the University, and is a part of the regular work of the Experiment Station.

Neither the Farmers' Institutes nor the Agricultural Experiment Station has any direct connection with the departments of instruction, nor can any of the funds provided for their maintenance be applied in any way to the maintenance of those departments.

The University is, therefore, an organized institution of broad scope and great practical usefulness in connection with the scientific and industrial interests of the State. Its efforts are organized in three general directions: First, as an institution of higher education. Second, as a bureau of investigation and dissemination of knowledge. Third, an agency for popular instruction in agricultural and rural affairs.

As an educational institution its field is that of applied science and technology; its courses of study relate chiefly to agriculture and the mechanic arts; its appeal is to the industrial classes, and its efforts to train men and women for an intelligent leadership in the pursuits and professions having relation to the leading industries.

It is the policy of the University, first, without lowering the high scientific and educational standards of its instruction, to keep the same in close touch with practical affairs and with the latest industrial progress in order to give to its technical instruction the greatest practical value possible, and second, to place the facilities of the institution within reach of the great numbers of young persons of limited means to whom such training is of the highest value. Both faculty and officers are thus striving to maintain the University in conformity to the high and useful purpose of its founders.

Purdue University has come to be ranked with the best schools of technology. Of this its rapid growth in attendance from all parts of the country and the remarkable interest in its work shown by practical business men are most conclusive proofs. Its graduates are sought for in every department of industrial activity and maintain themselves with credit. It is not too much to say that thousands of young men have found at Purdue an opportunity for training which has opened up careers of profit to themselves and of the highest usefulness to the community.

III. THE WORK AND PROGRESS OF THE UNIVERSITY FOR 1910-1911.

1. DEPARTMENTS OF INSTRUCTION.

Satisfactory conditions have prevailed in all departments of the University during the year. A hearty spirit of co-operation between students and teachers; earnest efforts on the part of all for greater efficiency; better teaching; better scholarship; higher standards; a nearer approach to the ideals of the University; and continued confidence and support of the public have been some of the gratifying features of the year's history.

The educational world has been concerned in the recurring criticisms of the American colleges. Comments upon the general moral conditions among college students, as well as upon the efficiency of the institutions in training their graduates for real service to society, have been frequent. Some have been sensational and extravagant to the extent of precluding serious consideration, but there is nevertheless a feeling that a greater seriousness among college youth and a more thorough work by the colleges is reasonably to be expected. It behooves educational authorities everywhere to give heed to these criticisms and to earnestly strive to correct objectionable tendencies in student life as well as to encourage sound scholarship.

No one believes that the student bodies of the higher institutions of learning are corrupt and vicious, although individuals of this description find their way into every college and are in evidence for a time. The mistake lies in estimating the whole student body by these conspicuous individuals. Critics do not consider that the great portion of the students are quietly going about their business and that the frivolous and dissipated ones come to grief early in their college career.

In this connection it is gratifying to know that the moral tone of the University has never been higher than at present. There has been during the year a notable lack of questionable conduct by students, and it is a matter of frequent remark that the overwhelming proportion of the students of Purdue are young men of high character, and serious. There has been a constant improvement in these matters in recent years as a result of the working of various

influences, among which may be mentioned the persistent personal efforts of many members of the faculty exerted through a period of years in developing and encouraging a right sentiment among students; the use of the new gymnasium as a means of recreation; and a marked reaction in the student body against the implied unfavorable influence of the evils of the neighboring city.

The general accusation against the character of students of American colleges does not find lodgment at Purdue. Nor does the statement that their college training is ineffective as a means of preparation for the realities of life.

There have been compiled from the University records the vocational statistics of about 3,000 graduates out of the 3,874 who have received degrees. If it be remembered that nearly two-thirds of these have graduated in the last ten years and that all are comparatively young men, the record is not only most gratifying but completely refutes the statements to the effect that their training has been defective. Over 40 per cent. of those heard from are in positions of important responsibility and trust; nearly one-third are in practical control of the manufacturing or commercial enterprises with which they are connected. It is practically impossible to trace the history of a graduate of whom it can not be said truthfully that his college training has been of positive benefit in advancing his success, while in the great majority of cases this is conspicuously so. The following classified table affords data for most gratifying study:

VOCATIONAL STATISTICS OF PURDUE ALUMNI.

In Public Service—	<i>Total.</i>	<i>M. E.</i>	<i>C. E.</i>	<i>E. E.</i>	<i>Sci.</i>	<i>Agr.</i>	<i>Ph.</i>	<i>Ch.</i>	<i>E</i>
In U. S. service	107	13	49	20	8	5	12	0	
In State service	32	3	6	4	6	9	4	0	
In city service	56	8	40	3	0	0	0	0	
In other service	14	2	8	2	1	0	1	0	
Consulting offices	35	6	16	9	3	0	1	0	
Lawyers	31	5	1	8	16	1	0	0	
Banking	22	7	1	0	9	1	4	0	
Teaching	248	73	25	36	34	23	7	0	
Manufacturing—									
Motor and automobile.....	44	30	0	12	1	0	1	0	
Railroad supplies	23	20	0	3	0	0	0	0	
Iron and steel wares.....	68	37	15	9	6	0	1	0	
Other mechanical	142	121	4	14	3	0	0	0	
Electrical	273	29	0	242	1	0	1	0	
Other	238	94	39	46	40	6	12	1	

Mercantile—

Farming and farm products..	117	16	11	10	7	65	8	0
Drug manufacture and sale...	441	0	0	0	8	0	443	0
Constructing and contracting..	136	37	35	13	1	0	0	0
Bridge construction	37	2	30	4	0	0	0	0
Steam railroad	314	113	162	34	1	2	2	0
Civic railways	53	4	11	37	1	0	0	0
Telephone and telegraph.....	56	1	1	53	1	1	0	0
Real estate and insurance.....	23	3	6	2	6	3	3	0
Heat, light, and power.....	80	18	8	53	0	0	1	0
Medicine and health work.....	72	0	0	1	33	4	34	0
Printing, publishing, writing....	26	8	2	2	12	1	1	0
Students, graduate	22	4	3	2	4	4	4	1
Ministers, etc.	8	1	0	0	6	1	0	0
Miscellaneous	41	8	3	2	27	0	1	0
Total	2,921	734	541	664	300	132	548	2

A Student Building.—Whatever tends to create a spirit of cohesion and good fellowship among students and instructors; to bring the whole University community into closer contact with each other; to promote personal association between the older and younger members, is bound to be reflected in a manlier tone and an elimination of the frivolous and objectionable features of college life. More than this, such conditions will stimulate the better ambitions and ideals of the student body and will result in more effective work. Purdue lacks a common meeting place in which to develop these conditions. No other single addition to the equipment of the University would have so wholesome and strong an influence upon the conduct and character of our students or would so encourage and crystallize the present gratifying tendencies as a suitable student union or kind of club house, where would be found outside of working hours a common meeting ground for recreation and association with each other; where all of the good influence of University life could be cultivated and where the various student enterprises could center.

An organized effort by the friends of our students could doubtless secure such a building, either by public appropriation or by private generosity. One can not conceive of a medium through which public spirited philanthropy could be applied to a large body of picked young men under conditions where their future lives and character could be so strongly influenced for good.

Dedication of New Shops.—A notable event of the year was the dedication on November 12, 1910, of the new buildings for the De-

partment of Practical Mechanics. The buildings had been occupied by classes since the opening of the University in September. The formal dedication consisted of a program of addresses in the morning by Hon. M. W. Mix of Mishawaka, head of the Dodge Manufacturing Company, Dean W. F. M. Goss, of the University of Illinois, and by President Stone and Dean Benjamin. At the noon hour a buffet lunch was served in the corridor of the building. In the afternoon a general inspection of the buildings was made by visitors and in the evening a reception to the public was held, which was largely attended. Brief addresses were made by Dean Cooley, of the University of Michigan and Dean Bissell, of the Michigan Agricultural College.

Care of New Students.—It has now become a fixed part of the year's program to devote considerable attention to new students, with a view to adjusting them to their new environment, saving them from indiscretions and aiding them to a more successful pursuit of their studies. The college Y. M. C. A. assists the newcomers in finding suitable rooms and boarding places; each new student is assigned to a faculty advisor; immediately after the opening of the University all new students are required to attend a series of lectures intended for their guidance and aid. For the last year these were as follows:

President Stone, "What Are We Here For?"

Professor A. T. Jones, "Foundations of Successful College Life."

Dean Stanley Coulter, "Health and Efficiency."

Dr. C. S. Woods, "Sound Hygiene."

During the first semester particular attention is paid to the quality of work of new students, with a view to discerning their aptitude, preparation, and weak points. These efforts are repaid many fold in the response of the students to University requirements and the saving of many from failure.

Brief Courses of Instruction.—The Winter Course in Agriculture of eight weeks duration was attended by 169 students, largely in excess of any previous year. The farmers' short course of one week was attended by over 1,300 men and women, in spite of the fact that six other short courses of similar character were held in different parts of the State. This sort of practical instruction grows in popularity and usefulness, and in its various phases, farmers' short courses, lectures, demonstrations, educational exhibits.

educational trains, etc., is eagerly sought for by thousands of people.

The establishment of the new Department of Agricultural Extension will greatly facilitate the efforts of the University to meet this demand, while at the same time relieving the School of Agriculture and the Experiment Station from the burden of this work for which heretofore there has been no special provision outside of their current resources. The success of this teaching as applied to Agriculture leads to the query why a similar effort in other industrial fields would not be equally valuable and well received. It is to be hoped that the time may come when other departments of the University may have the funds and facilities for carrying on research and extension teaching as is now done for agriculture.

Attendance.—The total attendance was slightly in excess of the previous year, the increase occurring in the enrollment of the freshman class and in the Winter Course in Agriculture. This increase was in part offset by a loss of thirty-four in the School of Pharmacy, due to the increased entrance requirements. Every county in the State was represented in this enrollment, which also included thirty-eight States and seven foreign countries. The following table presents a summary of the attendance for each year since the opening of the institution:

YEARS.	DEGREES GRANTED.				STUDENTS.									
	Bachelors.	Advanced.	Pharmacy.	Total.	Post Graduate.	Seniors.	Juniors.	Sophomores.	Freshmen.	Special.	School of Pharmacy.	Winter Course.	Total.	Preparatory.
1875.....	1			1		1		3	9	2			15	49
1876.....	1			1		1	1	6	8	1			17	49
1877.....	2			2	1	2	6	6	23	22			60	79
1878.....	4	3		7	3	4	5	12	28	14			66	101
1879.....	2	1		3	1	2	14	15	34	10			76	119
1880.....	7			7	2	7	11	23	36	8			87	117
1881.....	8			8	2	8	13	30	39	48			140	141
1882.....	8	2		10	3	11	21	22	44	61			162	127
1883.....	15	1		16	3	15	14	23	38	33			126	113
1884.....	10			10	4	13	15	21	43	31			127	101
1885.....	11			11	2	12	16	16	67	12	7		132	132
1886.....	16	1	7	24	3	16	10	27	77	14	13		160	156
1887.....	8	1	5	14	11	8	34	49	73	18	19		212	162
1888.....	24	3	6	33	26	26	31	42	78	24	28	14	269	99
1889.....	26	7	9	42	34	28	32	52	92	31	28	15	312	111
1890.....	29	9	14	52	34	29	38	66	105	23	48	5	348	115
1891.....	34	6	22	62	32	35	51	67	151	17	66		419	111
1892.....	41	12	21	74	34	45	56	104	197	22	70	13	541	94
1893.....	44	17	21	82	27	46	86	156	151	18	87	28	599	85
1894.....	67	14	36	117	25	75	104	117	166	25	85	29	626	56
1895.....	77	15	35	127	35	75	105	124	122	37	90	33	621	
1896.....	81	22	25	128	37	84	94	114	174	17	75	43	638	
1897.....	74	22	31	127	50	75	97	150	136	42	88	30	668	
1898.....	72	24	35	131	51	73	133	123	167	57	95	35	734	
1899.....	103	23	33	159	53	102	83	148	179	35	70	60	730	
1900.....	72	10	21	103	45	71	121	158	239	22	75	92	823	
1901.....	102	13	35	150	42	106	131	232	333	28	91	80	1,043	
1902.....	109	18	40	167	48	113	181	304	344	13	91	85	1,179	
1903.....	147	8	38	193	54	148	251	326	381	23	81	72	1,336	
1904.....	183	13	34	230	32	199	250	336	428	20	86	82	1,433	
1905.....	199	7	27	233	28	203	261	389	461	24	77	85	1,528	
1906.....	215	12	34	261	30	219	304	408	479	35	99	102	1,676	
1907.....	247	23	46	316	51	241	319	427	531	36	108	107	1,820	
1908.....	257	23	48	328	57	263	333	448	577	33	88	102	1,901	
1909.....	274	27	30	331	89	290	321	475	485	43	105	132	1,940	
1910.....	264	24	43	331	102	265	368	403	466	38	108	116	1,866	
1911.....	288	31	42	361	102	295	309	368	535	33	74	169	1,885	

Degrees Granted.—Three hundred and sixty-one degrees were granted by the University as follows:

Baccalaureate Degrees—

Bachelor of Science	27
Bachelor of Science in Agriculture	40
Bachelor of Science in Mechanical Engineering	62
Bachelor of Science in Civil Engineering	79
Bachelor of Science in Electrical Engineering	71
Bachelor of Science in Chemical Engineering	9

Graduate Degrees—

Master of Science	3
Master of Science in Agriculture.....	1
Mechanical Engineer	10
Civil Engineer	11
Electrical Engineer	6

Graduates of the School of Pharmacy—

Pharmaceutical Chemist	42
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One hundred and six certificates were given to students who had completed courses in the Winter School of Agriculture.

Nineteen certificates of proficiency were given to members of the senior class who had completed four years service in the military corps.

No better evidence as to the character of the work performed by candidates for these degrees can be given than to submit a list of the titles of theses prepared by students in the Schools of Science, Agriculture, and Engineering as a condition of graduation. These in all cases represent a piece of individual study, research or investigation, the key to which was given in a problem assigned by the department in which the work was performed. It will be noted that the subjects studied cover a wide range of topics, many of which are of great importance to the public welfare. It is an inevitable inference that men and women trained in so many diverse lines can hardly fail to render intelligent and helpful service in the progress of the communities in which they live.

Titles of Theses of the Class of 1911.

History of the Theories of Nutrition.
 Composition, Hardening and Setting of Cements.
 Food Production.
 Growth-rate and Form-factor in Indiana Forest Trees.
 Chemical Purification of Water.
 The Status of Industrial Education in Indiana.
 Literature of the Opsonic Theory and Its Applications.
 Relation of Properties to Composition of Glass.
 Modern Tree Surgery.
 A New Method in Quantitative Spectrum Analysis.
 Domestic Science in the Schools of Indiana.
 Hypochlorite Treatment in Water Purification.
 Complete Analysis of a New Calcined Phosphate.
 A Sanitary Study of the Water Supply of Logansport.
 Moral Training in the Schools; Past and Present Conditions.
 The Social Service of Public Schools in a Typical Community.
 Origin and Refining of Petroleum.
 Value of Artificial Fertilizers.
 Condition of Biological Work in Secondary Schools.
 Development of Physical Education.
 The Preparation of Ether from Alcohol and Sulphuric Acid.
 Origin, Composition and Refining of Petroleum.
 The Conditions in Rooming Houses in West Lafayette.
 Fluctuations of the Wholesale Wheat Market, 1870 to 1909.
 A Study of the Weeds of Wabash Township.
 Effect of Outside Conditions on Bacterial Content of Soils.
 An Agricultural Survey of Center Township, Dearborn County

Secondary Agricultural Education in the United States.
 Serum from Normal-Salt-Hyperimmunes for Vaccinating Hogs.
 Use of Normal Salt Solution in Production of Hyperimmunes.
 Study of the Disease-producing Spores of Some Farm Grains.
 Methods of Renting Farm Lands in Clinton County.
 Vitality of Seed Corn Stored Under Different Conditions.
 Factors Affecting the Supply and Price of Hogs.
 The Effect of Commercial Fertilizers on Potatoes.
 Effect of Fertilization on Composition of Corn Plants.
 Factors Causing Fluctuations in Supply and Price of Sheep.
 A Test of Forage Crops for Growing and Fattening Pigs.
 The Pollination of the Clover (Red) Blossoms.
 The History of Shorthorn Cattle in Indiana.
 A Study of Methods of Determining the Vitality of Seeds.
 A Study of Farm Management in Central Indiana.
 The Economics of Apple Growing in the United States.
 Soil Treatment, Time and Rate of Seeding in Alfalfa Culture.
 Methods of Projecting the Work of the Experiment Station.
 A Study of the Purity and Vitality of Clover Seed.
 Causes of Variations in the Richness of Cream.
 Methods Used in Agricultural Extension; For Adults.
 Tankage for Pigs Receiving Corn on Clover and Soybeans.
 Form and Gaining Capacity in Fattening Steers.
 The Amount of Protein Required for Milk Production.
 Methods Used in Agricultural Extension; For Young People.
 Potash Experiments With Potatoes on Northern Indiana Soils.
 Cost of Gas Power Plants.
 Efficiency Tests of a Vaucrain Compound Locomotive.
 Tests of a Gasoline Motor Inspection Car.
 Tests of Triple Valves.
 Locomotive Performance at 200 Pounds Pressure and Variable Cut-off.
 Test of a Fairbanks-Morse Fifty Horse-power Gas Engine.
 Strength of Cast-iron Punch and Riveter Frames.
 Strength of Dovetailed Joints in Wood.
 Efficiency and Cooling System of an Air-Cooled Gasoline Motor.
 Tests of Different Gasolines for Internal Combustion Engines.
 Tests of a Gray Marine Motor.
 Problems Arising in the Design of a Steel Passenger Car.
 Brake Shoes for Fast Passenger Service, Under Heavy Pressures.
 A Comparative Study of the Steam Engine Indicator.
 Efficiency of a Forty Horse-power Overland Gasoline Motor.
 Tests of an International Harvester Gasoline Engine.
 Locomotive Performance at 160 Pounds Pressure and Variable Cut-off.
 An Investigation of the Operation of the Steam Loop.
 Efficiency of the Transmission Gear of a Marmon Automobile.
 Tests of Fuel Oil of a Locomotive.
 The Relation of Shop Management to Cost of Production.
 Comparative Tensional Tests of Rubber Belting.
 Cost Systems as Applied to Railroad Repair Shops.
 Locomotive Performance at 120 Pounds Pressure and Variable Cut-off.

The Design of a Sixty-ton Yard Crane.
 An Efficiency Test of a Sirocco Ventilating Fan.
 Cost of Steam Power Plants.
 Design of a Three-ton Commercial Truck.
 Test of a High Speed Belted Air Compressor.
 Tests of a Fifty-one Inch Boring Mill.
 Test of the Lafayette Plant of the F. W. & W. V. Traction Company.
 Design of a Heating System for a Modern Office Building.
 Economy of Spacing and Height in Office Buildings.
 Design of Tanks and Filters for Sewage Purification.
 The Design of Masonry Piers for a Swing Bridge.
 The Discharge of the Wabash River.
 Gauging the West Lafayette Trunk Sewer.
 Survey and Improvements for Lafayette Country Club.
 Economical Spacing of Roof Trusses.
 Block Signals and Interlocking Signals.
 The Design of a Reinforced Concrete Armory.
 Investigation of Ferry Street Bridge.
 Design of Intercepting Sewer at Kokomo.
 Comparison of Concrete Arch and Steel Truss.
 Railway Track Deformations.
 Design of Tracks and Signals for Railway Yards.
 Tests of Tie Plates.
 Effect of Oils Mixed With Concrete.
 Bond in Air-set and Water-set Concrete.
 Design of an Aerial Tram-way.
 The Design of Reinforced Concrete Retaining Walls.
 An Investigation of Typical Mill Building Bents.
 Design of Elevated Water Tank for Fire Protection.
 Tests of Road Materials.
 Sewage Disposal Plant for Petersburg, Indiana.
 Flow of Sand and Water Through Pipes.
 Water Proofing of Concrete Blocks.
 Physical Properties of Zinc Treated Wood.
 Cost of Reinforced Concrete for a High School.
 Design for the French Creek Irrigation Project.
 Canal from Rochester, Indiana, to Lake Manitou.
 Design of Concrete Arch Bridge Across Wildcat Creek.
 Tests of Small T-Beams.
 Investigation of Girder Type of Reinforced Concrete Culvert.
 Reinforced Concrete Arch Bridge at Main Street, Lafayette.
 Design of Reinforced Concrete Grand Stand.
 A Water Supply for West Lafayette.
 Manufacture and Uses of Cement.
 A Test of Interior Illuminating Efficiencies.
 Disturbances on Long Distance Telephone Lines.
 Insulation Properties of Transformer Oils.
 Traffic Conditions on the Lafayette Street Railway.
 Flux Distribution in Air Gap of an Alternator.
 Power Required to Drive the New Purdue Shops.

- Study of the Columbia City Electric Light Plant.
- Test of the Municipal Lighting Plant at Portland.
- Braking Test of Purdue Test Car.
- An Accelerometer-profile Meter for Railway Tests.
- An Experimental High Tension Transmission Line.
- The Design and Test of Electric Welding Machine.
- The Value of Light in Color Matching.
- Operation of Small Motors on Direct and Alternating Currents.
- Test of a Kimble Variable Speed A. C. Motor.
- Accuracy of Transformer Tests by the Opposition Method.
- Power Plant Design for City of Franklin.
- The Design of an Electric Power and Lighting System.
- A Study of Railway Headlights.
- A High Tension Electrostatic Voltmeter.
- A Study of Two-Phase to Three-Phase Transformation.
- The Use of Electricity in Mines.
- Test of F. W. & W. V. Traction Co. Power Station at Lafayette.
- Flux Distribution in Air Gap of D. C. Machines.
- Efficiencies of Rectified and Continuous Currents for Storage Batteries.
- Design of Electric Equipment for a Modern Theater.
- Variation in Cost per K. W. of Electrical Apparatus.
- Test of the New Purdue Generator.
- Test of the New Purdue Motor-Generator Set.
- An Automatic Bond Testing Device for the Purdue Test Car.
- A Study of Electric Power Plant Evaluation.
- Tests of Dielectric Strength of Insulating Materials.
- Design of a Telephone Plant for Washington.
- Elimination of Disturbances on Long Distance Telephone Lines.
- A Test of a Kellogg Harmonic Converter.
- Utilization of Blast-furnace Gas.
- The Electric Furnace in the Metallurgical Industries.
- Manufacture of the Carbohydrates.
- A Test of the Efficiency of Commercial Dry Cells.
- The Contact Process of Sulphuric Acid Manufacture.
- Manufacture and Analysis of Vinegar.
- Sugar Manufacture.
- The Gas Producer and Its Relation to the Industries.
- Petroleum
- Breadmaking—Experimental Studies.
- Cell Pressures in Algae; an Experimental Study of Isotonic Coefficients.
- The Unattached Aecial Forms of Plant Rusts in North America.
- Factors Influencing the Yield and Quality of Tomatoes for Canning Purposes.
- Carburetors, Carburetion and Power.
- A Study of the Pressures in a Gasoline Motor as Shown by the Manograph.
- The Design of a Series of Hydraulic Power and Pumping Plants with Electric Transmission for Irrigation Work.
- A Study of the Mixtures Delivered by Commercial Carburetors.

The Development of a Course in Engineering Laboratory Practice.

The Design of a Suction Producer Power Plant of One Hundred Horse-power Capacity.

Design of a Course in Modern Steam Power Plants.

Design and Construction of a Loaded Telephone Cable from Newark to Plainfield, N. J.

Design of a Steel Plant to Utilize All of the Waste Gases of the Blast Furnaces for Finishing the Product.

Report on Des Moines River Drainage Project.

The Drainage of Lowlands in Lake and Porter Counties, by the Improvement of Little Calumet River.

Design of a Course in Structural Engineering.

The Design of a Reinforced Concrete Trestle.

Methods of Valuation of Public Water Supply.

Modern Design and Construction of Self-supporting Water Tanks and Towers.

Construction of a Transmission Line.

Bank Protection of the San Isidro River, Philippine Islands.

Drainage of the Cottonwood River Valley, Kansas.

Reconstruction and Double Tracking of C. N. O. & T. P. Ry., Pine Knot, Ky., to Bear Creek, Tenn.

Construction and Cost of a Reinforced Concrete Building.

Artificial Illumination of a Post Office.

Power Distribution for the Chicago City Railway Co.

A Study of Iron at Low Flux Densities.

A Study of Defects of Electrical Apparatus.

The Application of Electricity to Structural Steel Fabrication.

Electrical Development in the Bedford Stone Industry.

Publications.

I. BY THE UNIVERSITY.

University Bulletin No. 1, Vol. XI.—Announcement of Winter Courses in Agriculture.

University Bulletin No. 2, Vol. XI.—Annual Report of the President and Other Officers of the University.

University Bulletin No. 3, Vol. XI.—The Shops and Engineering Laboratories.

University Bulletin No. 4, Vol. XI.—Annual Catalogue.

University Bulletin No. 5, Vol. XI.—Circular of Information of the School of Pharmacy.

University Bulletin No. 6, Vol. XI.—The Engineering Review.

A Bulletin was also published by the Alumni Association.

II. BY THE EXPERIMENT STATION.

a Reports.

The Twenty-third Annual Report for the Year Ending June 30, 1910, pp. 70. January, 1911.

b Regular Bulletins.

- No. 149, Vol. XV.—March, 1911, pp. 23. Summary of Five Years' Co-operative Tests on Grains. A. T. Wiancko and C. O. Cromer.
- No. 150, Vol. XV.—May, 1911, pp. 55, 16 Illustrations. Why Do Cream Tests Vary? O. F. Hunziker.
- No. 151, Vol. XV.—May, 1911, pp. 163. Commercial Fertilizers. W. J. Jones, Jr., F. D. Fuller, E. G. Proulx, R. B. Deemer.
- No. 152, Vol. XV.—June, 1911, pp. 403. Commercial Feeding Stuffs. W. J. Jones, Jr., F. D. Fuller, C. Cutler.

c Circulars.

- No. 23, July, 1910, pp. 40, 18 Illustrations. Agricultural Extension VII. How to Grow More Wheat.
- No. 24, July, 1910, pp. 48, 43 Illustrations. Agricultural Extension VIII. Information Concerning the Experiment Station and School of Agriculture.
- No. 25, March, 1911, pp. 36, 10 Illustrations. Agricultural Extension IX. How to Grow More and Better Corn.
- No. 26, April, 1911, pp. 21. Agricultural Extension X. Computing Rations for Dairy Cows.
- No. 27, April, 1911, pp. 7. Agricultural Extension XI. Suggestions for Beginners in Alfalfa Culture.

d Press Bulletins.

- No. 165. August 12, 1910. Results of Tests of Varieties of Wheat.
- No. 166. August 19, 1910. Agricultural Extension XII. Helps to Teachers.
- No. 167. October 8, 1910. Agricultural Extension XIII. Free Seed Testing.
- No. 168. November 5, 1910. Agricultural Extension XIV. Cattle Feeders' Meeting.
- No. 169. November 11, 1910. Agricultural Extension XV. Orchard Demonstrations.
- No. 170. February 10, 1911. Results of Tests of Varieties of Oats.
- No. 171. February 18, 1911. Testing Seed Corn.
- No. 172. March 3, 1911. Co-operative Experiments With Field Crops.
- No. 173. March 10, 1911. Oat Smut.
- No. 174. March 17, 1911. Agricultural Extension XVI. Indiana Eggs.
- No. 175. March 31, 1911. Agricultural Extension XVII. How to Detect Bad Eggs.
- No. 176. April 14, 1911. Agricultural Extension XVIII. How to Produce Marketable Eggs.
- No. 177. April 29, 1911. Agricultural Extension XIX. Improving Egg Conditions.
- No. 178. May 12, 1911. Weed Extermination.
- No. 179. May 17, 1911. Two Beetles Infesting Clover Fields.
- No. 180. June 2, 1911. Notice to Creameries.

III. BY THE DEPARTMENT OF AGRICULTURAL EXTENSION.

Principles Involved in Bread Making.
 List of Books on Domestic Science.
 List of Books on Agriculture.
 County Fair Exhibits.
 Buckhorn and Other Plantains.
 Stock Judging Contests for Boys.
 Horticultural Demonstration Meetings.
 Report of Farmers' Institutes.

IV. BY MEMBERS OF THE INSTRUCTIONAL CORPS.

- J. C. Arthur—
 Cultures of Uredineæ in 1909.
 New Species of Uredineæ.
- W. H. Bates—
 An Application of Symbolic Methods to the Treatment of Mean Curvatures in Hyperspace.
- C. H. Beckett—
 On Group Valuations.
- C. H. Benjamin with L. E. Endsley—
 Locomotive Performance Under Superheated Steam.
 Tests of Brake Shoes.
- F. J. Breeze—
 Conservation Problems of Indiana.
- Severance Burrage—
 Conservation of Life Through Technical Training.
- Stanley Coulter—
 Woodlot Conditions and Possibilities.
 Arbor Day in the Public Schools.
 The Work of the Library in Rural Betterment.
- L. E. Endsley with L. W. Wallace—
 Experiments With Freight Car Trucks on Curves.
- P. N. Evans—
 Place of Research in Undergraduate Schools.
- P. N. Evans with Jennie Tilt—
 Benzo-phosphide.
- C. F. Harding with A. N. Topping—
 On Headlight Tests.
- W. K. Hatt—
 Tests of Creosoted Paving Blocks.
 The Purdue Cement Laboratory.
 Instructions for Experiments in Laboratory for Materials Testing.
 (Joint author.)
 Strength of Ties Treated With Crude Oil.
 Report of Committee on Wood Preservation. (Joint author.)
 Report of Committee on Reinforced Concrete. (Joint author.)

- W. M. Hepburn—
 Agricultural Periodicals.
 Public and School Libraries of Nova Scotia.
- J. D. Hoffman with B. F. Raber—
 Manual of Heating and Ventilation.
- F. D. Kern—
 Prediction of Relationship Among Some Parasitic Fungi
 Further Notes on Timothy Rust.
 The Rusts of White and Red Clover.
- L. V. Ludy with L. W. Wallace—
 Steam Engines. (Text-book.)
- E. G. Mahin—
 Conductivity of Certain Salts in Ethyl-amine.
- William Marshall—
 On Hills Differential Equation in the Theory of Perturbations.
- A. R. Middleton—
 Abstracts of Chemical Papers.
- C. R. Moore—
 On Overloaded Steam Engines.
 A Study of Unbalanced Magnetic Pull.
 An Error in Measurement.
- C. R. Orton—
 Disease Resistance in Varieties of Potatoes.
- R. L. Sackett—
 European Methods of Sewage Purification.
 Recent Methods of Water Purification.
 English Sewage Purification.
- H. H. Scofield—
 Strength of Concrete Building Blocks.
- C. B. Veal—
 Notes and Problems in Mechanism. (Revision.)
- Jacob Westlund—
 On the Fundamental Number of a Certain Algebraic Number Field.
 On the Relative Discriminant of a Certain Kummer-field.
 On the Primitive Roots of Ideals.
 Primitive Roots of Ideals in Algebraic Number-fields.
- G. A. Young—
 Notes on the Steam Engine. (Text-book.)

Public Lectures and Entertainments.—During the year a considerable number and variety of lectures, addresses, and entertainments were given at the University under the auspices of one or another organization. For the most part these affairs were educational in plan and purpose, and contributed in no small degree to the intellectual recreation and development of the students. Members of the faculty had a prominent part in these programs, and

many others not connected with the University have given generously of their time and ability without compensation. To all these grateful acknowledgment is due on behalf of the institution.

1. The weekly university convocation at eleven o'clock on Wednesdays, arranged by a joint committee of faculty and students, consisted of a series of interesting programs, including addresses and musical recitals, to which in addition to numbers by the faculty the following persons and organizations contributed:

Readings by Mr. Charles Williams, of Indianapolis; Mr. Charles Major, Shelbyville.

Addresses by President F. J. McConnell, DePauw University; President G. L. Mackintosh, Wabash College; President W. L. Bryan, Indiana University; Mr. Meredith Nicholson, Indianapolis; Mr. John T. McCutcheon, Chicago; Professor A. A. Stagg, University of Chicago; Dr. C. P. Hutchins, Indiana University; Professor F. Paul Anderson, Kentucky State University.

Musical entertainments by Victor's Venetian Band; String Quartette from Reifer's Orchestra; Maude Powel, Violinist; Alice G. Smith, Harpist; Misses De Marcus; Wabash College Quartette; Mrs. Hugo Lowenthal, Vocalist.

2. The University Lecture Course, under direction of a Committee of the Faculty, included the following numbers:

Lectures by W. L. Hubbard, A. Radcliffe Dugmore, W. K. Moorhead, Edmund Vance Cooke, Professor George E. Vincent.

Reading by Henry Hadfield.

Concerts by Corinne Rider-Kelsay, Helen Waldo, Kneisel Quartette.

Presentation of Romeo and Juliet by the Amherst College Dramatic Club.

3. Addresses were given before the Christian Associations as follows:

(a) Under the auspices of the Y. W. C. A. by Miss Kawaia of Japan; Miss Emma Jean Batty, State Secretary Y. W. C. A.; Miss Johnson, foreign missionary; and Miss Melchier, National Secretary Y. W. C. A.

(b) Under the auspices of the Y. M. C. A. by F. L. Johnson, State Y. M. C. A.; C. H. Robertson, China; C. C. Pyke, Lafayette; Dr. C. B. Kern, Lafayette; Rev. D. Tillotson, Lafayette; Rev. O. R. McKay, Lafayette; Dr. G. I. Robinson, Chicago; F. M. M. Richardson, St. Louis; P. A. Swartz, Traveling Secretary; A. J. Elliot, Traveling Secretary; President F. J. McConnell, DePauw University; W. W. Lockwood, General Secretary; A. B. Minear, Chicago; Rev. F. L. Pettit, Lafayette; Martin S. Bryant, Boston; J. R. Brewster, Chicago; Rev. C. P. Foreman, Dayton; Hanson S. Elliot, International Secretary; J. E. Crowther, Field Secretary.

4. The Engineering Assembly, organized by the faculties of the engineering schools, presented a series of addresses on technical subjects by members of the faculty and the following persons:

Professor E. C. Schmidt, University of Illinois.

Willard Beehan, Construction Engineer, L. S. & M. S. Railway.

R. H. Fernald, Professor Mechanical Engineering, Case School of Applied Science.

Dean Turneure, University of Wisconsin.

Mr. George Loring of National Electric Lamp Association.

Dr. H. Von Schrenk, Timber Preservation Department, R. I. and Frisco Railway.

Dr. E. J. Berg, Professor of Electrical Engineering, University of Illinois.

Professor M. E. Cooley, Dean of Engineering, University of Michigan.

Mr. A. A. Serva, Assistant Sales Manager, Fort Wayne Electric Works.

Mr. Arthur L. Rice, Editor, The Practical Engineer, Chicago.

Professor John R. Allen, University of Michigan.

C. F. Scott, Vice-President Westinghouse Electric and Manufacturing Company, Pittsburgh, Pa.

5. At the Farmers' Short Course, popular addresses were given by the following:

Mr. Joseph E. Wing, Mechanicsburg, Ohio.

Rev. A. B. Storms, Indianapolis.

Hon. C. W. Fairbanks, Indianapolis.

Dr. J. C. Lipman, New Jersey Experiment Station.

Mr. J. P. Prigg, Daleville.

Mr. H. C. Pierce, United States Department of Agriculture.

Dr. W. O. Thompson, President Ohio State University.

Mrs. Nellie Kedzie Jones, Minneapolis, Minn.

6. At the annual meeting of the American Society of Agricultural Engineers, held at the University during the holiday recess, the following named persons gave addresses:

Mr. Newell Sanders, N. Sanders Plow Company, Chattanooga, Tenn.

Dr. H. E. Horton, American Steel Wire Company.

Professor F. H. King, University of Wisconsin.

Mr. L. W. Ellis, Rumley Company, Laporte, Ind.

Mr. W. F. McGregor, Case Threshing Machine Company.

Mr. W. A. Cavanaugh, International Harvester Company.

Professor M. L. King, Iowa State University.

Professor J. B. Davidson, Iowa State University.

Mr. E. P. Edwards, General Electric Company.

Professor C. K. Shed, University of Nebraska.

Dr. Samuel Fortier, Chief of Irrigation Investigations.

7. At the meetings of various agricultural associations held at the University, public programs included the names of the following speakers:

(a) Farmers' Institute Conference: O. E. Bradfute, Xenia, Ohio; Mrs. Virginia Meredith, Cambridge City; Mrs. Oliver Kline, Huntington; R. A. Ogg, Lyons; Rev. H. M. Rogers, Vincennes; O. H. Benson, County Superintendent of Schools, Clarion, Iowa; Mr. Henry Wallace, Des Moines, Iowa, Editor Wallace's Farmer; W. B. Spencer, Martinsville; A. W. Peter. Mulberry; Willard Ault, Chairman Cass County Institute; A. J. Bullis, Brook; G. F. Wheeler, International Harvester Company; Mr. J. G. Imboden, Decatur, Illinois, at Corn Breeders' Association; Mr. F. H. LaBaume of Virginia.

(b) The State Dairy Association: D. B. Johnson, Mooresville; Dr. D. R. Lee, Indianapolis Jersey Cattle Club; Geo. Cavens, Editor "Dairy Products," Chicago; N. P. Hall, Michigan Dairy and Food Commissioner; Hon. E. K. Slater, St. Paul, Minnesota, of National Dairy Union; Professor C. C. Hayden, University of Illinois; H. P. Schwab, Poultry Expert, New York; Dr. G. W. Butler, Federal Meat Inspector, Lafayette.

(c) The Wool Growers' Association: Mr. John R. Nash, Tipton; A. J. Knowlin, Vice-President Wool Growers' Association, Idaho; Dr. McClure, Secretary Wool Growers' Association, Idaho.

(d) Cattle Feeders' Meeting: Governor Thomas R. Marshall; Professor H. J. Waters, Kansas Agricultural College; Mr. J. G. Imboden, Illinois.

8. Miscellaneous addresses and recitals were given as follows:

(a) During Commencement Week.

The Baccalaureate Address, Rev. Joseph Vance, Chicago, Illinois.

The Commencement Address, Hon. Joseph W. Folk, Missouri.

Dramatic Reading, "Chanticleer," Professor S. H. Clark, University of Chicago.

(b) Under the auspices of the Society of Sigma Xi.

Dr. D. T. MacDougal, Desert Laboratory, Tucson, Arizona; Professor G. W. Richey, Mt. Wilson Observatory.

(c) In connection with the dedication of the Practical Mechanics Buildings.

Hon. M. W. Mix, Dodge Manufacturing Company; Dean W. F. M. Goss, University of Illinois; Dean M. E. Cooley, University of Michigan; Dean G. W. Bissell, Michigan Agricultural College.

(d) Four public lectures on the Life and Customs of Germany were given under the auspices of the German Department by Professor Herman Babson.

(e) Under the auspices of the University Club, lectures were given by:

Professor W. E. Jenkins, Librarian, Indiana University; Professor E. A. Ross, University of Wisconsin; Professor Martin L. D'Ooge, University of Michigan; President A. W. Harris, Northwestern University; Hon. William Dudley Foulke, Richmond, Indiana.

(f) The Mountain Ash Chorus gave two concerts under the auspices of the Glee and Mandolin Club.

Dr. C. T. Woods of Indianapolis lectured before new students in Health and Efficiency.

Dr. A. W. Bitting lectured before the Biological Club.

Research.—Except in the Agricultural Experiment Station no funds are specifically available for the support of scientific research and the general funds of the University are not sufficient to warrant the setting aside of appreciable funds for this purpose. Under these conditions it is greatly to the credit of members of the faculty that in every department some project of special investigation is always under way. These studies have usually some direct connection with problems arising in engineering or industrial operations and their pursuit of such inquiries is quite as attractive to the student and instructor as researches in pure science while the results are no less useful.

With larger resources the work of the University in this field might become of great importance to the State. The provision of special funds for investigations relating to agriculture has been justified in a remarkable degree but there is no reason why similar efforts over the whole industrial field would not yield equally important results. There are many vital matters relating to public welfare presenting problems capable of solution by research, or in which prevailing practice might be profitably improved by careful study. The economic use of fuels; the protection of water supply; sewage disposal; management of public utilities; use of materials of construction; improvement of manufacturing processes; materials testing for public works and many other related questions might be studied at Purdue with profit to the community. Here are the laboratories, the scientifically trained men, and the atmosphere of research of which greater use should be made and greater profit derived. It is not too much to expect that in due time the importance of these matters may lead to the establishment of departments of research in other connections than agriculture.

As in previous years members of the faculty have prosecuted inquiries of which a brief summary follows.

In the School of Mechanical Engineering the following investigations have been carried on: Experiments to determine the friction of freight car trucks on tangent and curved tracks; a study of the effect of high temperatures of superheated steam on the economy of the locomotive; tests of brake shoes under heavy pres-

tures and high speed; a study of the working dimensions of the steam loop; an investigation of curved machine members under load; the design of propellers and planes for aerial vehicles of the heavier than air type; combustion mixtures for deficient carburetors; power absorbed by the mechanism of an automobile; air velocities and temperatures in the cooling system of an air cooled auto engine; performance of a two-cycle marine motor; verification of the formula for the heat value from a Beaume scale; effect of using metallic spark plugs on the operation of gas engines; experiments in igniting gas under high pressure; refrigeration as produced by the absorption system (with the engineering department of Harvard University).

In the Biological Department investigations were followed upon the rate of tree growth under forest conditions; upon the composition and distribution of forests in Indiana; further investigations on methods and results of purification of swimming pools; variations in gastric secretions; causes and treatment of root rot of apple trees and the sweet potato rot; inspection of a rubber plantation in Chicapas, Mexico; study of glacial action in northwestern Indiana.

The School of Civil Engineering conducted investigations on the strength of track fastenings; wood preservation with zinc chloride and calcium sulphate; mechanics of girderless concrete floors; deformations of railway track under varying loads; behavior of reinforced concrete T-beams in bonding; effect of oils and bitumens on strength of cement mortars; methods of waterproofing concrete building blocks; tests of glued joints; an investigation of the sewage of Kokomo; of the water supply of Crawfordsville; of the water supply of Liberty; experiments on the flow of sand and water through pipes.

In the School of Electrical Engineering investigations were conducted on losses peculiar to high tension transmission lines; flux distribution in air gaps of direct current machines; and in alternating current generators; electric clocks; a direct reading accelerometer.

In the Chemistry Laboratory a number of researches in pure chemistry have been in progress.

The extensive investigations conducted by the Experiment Station are summarized under another heading.

2. THE AGRICULTURAL EXPERIMENT STATION.

This branch of the University continues to increase in its usefulness, in public confidence and in the scope of its activities. The growth of the Experiment Station has been notable, reflecting as it does the interest and support of the farming classes of the State, although the value of its work is equally appreciated by business and professional men. Six years ago the total annual income of the Station was \$15,000; for the past year it was \$187,436.32. At the former date the scientific staff numbered 15; now it includes over 40 persons. These facts are only indicative of the expansion of this institution in every way.

In previous reports the fear has been expressed that the great popularity of the Station and the almost overwhelming demands upon it for assistance and coöperation with farmers would result in seriously diverting its resources and the energies of its staff from the more serious and important purposes for which it was intended. It becomes more and more evident that the usefulness of the University to agriculture divides itself into three main lines of effort, namely, teaching, investigation, and practical demonstration. The business of the Station is purely that of investigation, but in the absence of any other agency it has assumed the duty of so far as possible actually carrying the results of its investigations to the farmer and showing him how to put them into practice. This duty has lately grown to large proportions as the farmers have recognized its value, until it has threatened to absorb the time and resources of the Station to the great detriment of its scientific work. Fortunately this situation has been met by the establishment by act of the last Legislature, of the new department of Agricultural Extension, the duty of which it becomes to project before the public the work of both the School of Agriculture and the Experiment Station. This will afford great relief to the Station, as well as to more adequately meet the demands of farmers for direct assistance. The more important features of the work of the Station during the past year may be summarized as follows:

Agriculture (including Crops and Soils).—This department conducts a great number and variety of field experiments in all parts of the State, bearing upon soil management and fertility, crop production, variety testing, etc. Experiments in systems of cropping show that in a term of twenty years on the University experimental fields, a system of rotation including clover has maintained if not actually increased fertility, while the omission of this

crop both on fertilized and unfertilized plats has resulted in large diminution of productivity. Experiments upon the effect of various soils and fertilizers on the actual composition and quality of potatoes are already yielding notable results. Field experiments in Vigo County on the fertilization of the tomato crop for canning purposes have given profitable results and it will soon be possible to definitely advise growers on this point. Experiments in breeding and improving grains have already yielded promising and apparently fixed types which are now ready for multiplication. Variety testing is being continued, except that sorghum, buckwheat, and broom corn tests have been dropped after arriving at satisfactory conclusions. Many varieties of grains have been imported from foreign countries and are being tested for their adaptability. These cultural experiments with various crops include comparative tests of implements, methods of planting and of cultivation. The use of soy beans and cow peas as after-harvest corn crops indicate their value as nitrogen gatherers in the absence of clover. Co-operative crop and fertilizer tests have been lessened somewhat, partly because of lack of funds and partly because satisfactory conclusions are being reached. In all 576 such experiments were carried on.

Animal Husbandry.—Five feeding trials with beef cattle were conducted along much the same lines as in the previous year to secure data on the comparative value of compounded rations. Five similar experiments were carried out with swine. The first systematic feeding experiment with fattening sheep at this Station was successfully concluded during the year. Eighteen coöperative feeding experiments were also carried out. A poultry department has been established with an equipment of seventeen acres of land, a building, poultry houses, stock, etc., and experiments in feeding, breeding and care of poultry carried out. Several popular bulletins have stimulated great interest in the poultry industry.

Botany.—The principal attention of this department has been directed to a continuation of the main line of investigation of recent years, upon plant rusts. Other investigations have related to the abundance and distribution of plant diseases, the spread and extermination of weeds and the growing of mushrooms.

Dairy Husbandry.—The field work of the department included coöperative herd tests; meetings of those interested in dairying; inspection of creameries and dairies; conducting a dairy exhibit at

the State Fair; making 74 official tests of pure bred dairy animals for registration; testing creamery glassware for accuracy, to the number of 1,836 pieces, the results showing very great improvement over previous conditions, only 9.5 per cent. being found inaccurate with a maximum error of .5 per cent.

Dairy investigations included an important study of the best types of Babcock testing bottles and the preparations of specifications for standardizing this apparatus. These specifications have been adopted and recommended for use. An important investigation of the causes of variation in cream testing shows that these are largely due to the unskillful use of the milk separator and indifference to essential conditions. Extensive studies in the control of moisture content of butter during four years have been practically concluded. Pasteurization experiments, studies of laboratory methods, and laboratory analyses were made in great number.

Horticulture.—The experimental work of this department for the lack of proper laboratories and greenhouses must for the present be confined to field work. A plan for orchard management at Laurel, Indiana, calculated to extend over 15 years, has been inaugurated. Demonstration orchards in various parts of the State have been established by coöperation with orchard owners. Demonstration meetings and exhibits were held with good results at many points. An interesting experiment in orchard heating to avert injury by late frosts was conducted at Clark's Hill. Extensive experiments in growing tomatoes for the cannery were conducted. Many tests for varieties of small fruits and vegetables were conducted on the Station grounds.

State Chemist.—This department of the Station is charged with carrying out the provisions of the laws relating to the control of fertilizer and feeding stuff sales, a responsible and important work. The use of commercial fertilizers in this State is steadily increasing. 151,856 tons of this material were sold in Indiana during the year. Ten years since the annual sale was 71,026 tons. The trade has now extended into every community in the State. The work of inspection, included taking and analyzing 1,097 samples. Ninety-six per cent. of all samples were above suspicion of fraud. Eight cases of fraud were reported for prosecution.

The inspection of commercial feeding stuffs is a work of even greater magnitude than the fertilizer control. During the year 2,325 samples were taken, representing the products of over 900

manufacturers. Results show a steady improvement in the quality of these products together with an average reduction in cost. Sixteen cases of intentional adulteration were noted, but about 30 per cent. of all samples were deficient from the guarantee in some respect. The effect of the inspection and application of the law is to furnish the consumer better products for his money and protect the honest manufacturer from fraudulent competition.

The State chemist is also commissioned by the United States Department of Agriculture to collect samples under the Federal Food and Drug Act.

The department has made special studies of the sale of condimental foods in several counties; on special methods of supplying potash containing fertilizers; and coöperated in the special analytical studies under the auspices of the American Chemical Society.

Veterinary.—The most notable activity of this department has been in the production and distribution of anti-hog-cholera serum which in response to the large demand has become an important enterprise. The Station has acquired a suitable piece of ground and erected buildings thereon especially for this work. 1,262,296 c. c. of serum were produced and sold to herd owners for a sum just sufficient to cover the cost of production. The efficiency of the serum treatment in checking hog cholera is shown by the statistics indicating a mortality of only 2.5 per cent. in herds where the serum was used. The services of the Station in thus combating this scourge are of inestimable value with the certainty of even greater usefulness as the knowledge of the treatment spreads.

Miscellaneous.—The mailing list of the Station now numbers 36,357 addresses. The publications during the year were 30 in number comprising 750 pages and 444,000 copies.

The Experiment Station is one of the most valuable economic agencies which the State possesses. It is growing in its influence because the farmers are beginning to realize their needs and possibilities, and to utilize the knowledge which the Station supplies. This means not only a better agriculture, but, through it, an increased wealth and economic conditions for Indiana which will repay many fold the cost of this branch of the University.

3. FARMERS' INSTITUTES.

On February 28, 1911, an act of the Legislature, approved February 27th, repealing the Acts of March 9, 1889, and subsequent acts and amendments, went into effect, thus closing the record of

twenty-two years activity of the Farmers' Institutes as a separate branch of the University.

The new law, more broad in its scope, provides for the continuation of farmers' institutes as one of the important branches of the work of agricultural extension. The change, therefore, is one of organization and it is believed will not detract from the efficiency or influence of this important agency for agricultural betterment. Professor W. C. Latta, who from the beginning has been the superintendent of institutes and to whose faithful and wise direction the efficiency and successful development of the work is due, continues in charge of this phase of the great movement for the improvement of agriculture and rural conditions.

When the new law went into effect the institute season of 1910-1911 was practically completed. In all 382 institutes were held, including 1,267 sessions with an average attendance of 150 and an aggregate attendance of 201,580 persons. The institutes were of the same general character as in previous years with a growing and broadening attention to woman's part in the farm home and rural community. In twenty-eight counties special sessions for women were held, and in every institute of true and profitable character, women had some share. Woman's auxiliaries to the institutes exist in forty counties. In addition to the regular institute programs for women, trained lecturers in domestic science have given systematic instruction on the subjects of food, sanitation, home management, etc., in every county of the State save one.

Institute work in the interest of young people has been well sustained in the form of contests in the production and exhibition of agricultural products in thirty-two counties. Agricultural clubs of boys or girls were reported from fifteen counties.

All of those features of the Farmers' Institutes which have proven to be of value in the past will be retained under the new law with the expectation that the institutes will continue to increase in efficiency and usefulness.

4. AGRICULTURAL EXTENSION.

The term Agricultural Extension applied for many years to the unorganized and irregular efforts of the University in disseminating and popularizing agricultural information, became specific when in 1909 the Legislature appropriated \$10,000 annually to the Experiment Station for the purpose of carrying the results of its investigations to the farmers and to demonstrate their application

to farm practice. The Legislature of 1911 enacted a bill introduced by Representative L. B. Clore and approved on February 27th, establishing a definite department of Agricultural Extension at the University in order "to promote the improvement and advancement of agriculture, domestic science, and rural life * * *, and aid in the diffusion among the people of the several counties of the State of useful and practical information on these subjects," and appropriating \$30,000 annually for the maintenance of the work. The Board of Trustees on March 11th approved a plan of organization by which the new department was made coördinate with the University departments of instruction and the Experiment Station, and appointed Professor George I. Christie as Superintendent. On March 18th the Advisory Committee approved the plans submitted by the Superintendent outlining the work of the department as follows:

1. Instruction to farmers assembled in organized meetings such as institutes, short courses, conferences, clubs, educational trains, etc.
2. Practical demonstrations in the field and orchards of new and improved practices; exhibits of pictures, charts, and materials; and contests in producing and exhibiting farm products, especially by young people.
3. The encouragement of the teaching of subjects relating to rural life in the public schools.
4. Instruction in domestic science by lectures and demonstrations before gatherings of women.

The activities of the new department thus become greatly stimulated and enlarged over what has before been possible in this field. The report for the year therefore covers two periods; the first where the department was operating as a part of the Experiment Station; the second, the last four months of the year after it was placed on a separate footing with increased facilities and resources. The more notable features of its work are as follows:

Farmers' Short Courses.—Six short courses of instruction of one week each were held at Lowell, Reynolds, Huntington, Evansville, Terre Haute and Richmond, with an attendance of from 350 to 1,700. The courses consisted of lectures and practical demonstrations in judging and scoring of corn, live stock, poultry, fruit, and dairy products; on improved practice in farming, dairying, etc.; domestic science demonstrations, etc.

Educational Trains.—Railways, appreciating the value of any movement tending to increase agricultural production, have generously coöperated with the department in equipping and running

special trains, thus affording an unusual opportunity to reach large numbers of farmers in an effective way at small cost. These trains have everywhere been received with great enthusiasm. Two such trains have been conducted during the year, the first on the Pennsylvania Lines from August 22d to September 7th, devoted to wheat culture, and attended by 14,700 persons; the second over the Lake Erie and Western lines, from April 25 to 29, devoted to corn culture, with an attendance of 5,000 persons.

Seed Laboratory.—In coöperation with the Bureau of Plant Industry of the United States Department of Agriculture, there has been established in the department a laboratory for seed testing. Seed samples of all farm and garden crops are tested for purity and germinating power free of charge. This service is in increasing demand. During the year 1,320 samples of seed were thus tested and reported upon.

Domestic Science Demonstrations.—Under the auspices of the department trained lecturers have been sent to all parts of the State to give instruction in Home Economics or Domestic Science, demonstrating the principles underlying the selection and preparation of food, care and clothing of the body, feeding and care of children. Assistance has also been given in planning and organizing courses in domestic science in the schools of the State. Encouragement is given to baking, sewing, fruit canning, and other vocational contests among girls.

Demonstrations have been given at thirty-three places in the State attended by nearly 4,000 women.

Exhibits.—An exhibit for county fairs, illustrating the work of the School of Agriculture and Experiment Station has been prepared and shown at fourteen county fairs. The exhibit includes photographs, charts, specimens, materials, products, and apparatus relating to the work of instruction or experimentation in dairying, animal husbandry, horticulture, soils and crops, botany, and veterinary science. At the State Fair an extensive exhibit of every department of the Station and School of Agriculture attracted the attention and interest of thousands of visitors.

Horticultural Demonstrations.—The planting, cultivation, and care of orchards, spraying, pruning, etc., have been the subjects of numerous demonstrations held in several counties of the State, arousing much interest among fruit growers and attended by 1,305 persons.

Agriculture in Rural Schools.—The increasing interest in teaching vocational subjects, particularly agriculture, domestic science, and manual training in rural schools occasions a demand for assistance for teachers who are often poorly prepared for such teaching. To meet this need bulletins have been published, collections of materials supplied, special meetings for teachers organized, instruction in teachers' institutes supplied, lists of reference books prepared and in every possible way aid and encouragement given. The results fully warrant greater attention to this important matter during the coming year.

The publications of the department are listed elsewhere. In addition to the activities above outlined a vast amount of miscellaneous assistance to individuals has been given by correspondence and the usefulness and popularity of the department are already established to such an extent as to severely burden its capacity.

IV. PERMANENT IMPROVEMENTS AND DONATIONS.

Two buildings have been completed during the year, both in connection with the Experiment Station.

Poultry House.—A two-story frame building with basement was erected on the Schwegler land at a cost including fixtures and furniture of \$5,000. This building is for the use of the poultry department, containing laboratory and work rooms, offices and living room for the assistant in charge.

Serum Laboratory.—The larger demands for the services of the Veterinary department in supplying anti-hog-cholera serum has necessitated the purchase of five acres of land convenient to the University but separated from the campus near the tracks of the Lake Erie and Western Railway on which have been located the yards and houses for caring for swine under treatment, and a laboratory building for the processes connected with serum manufacture. The cost of the land was \$3,800 and of the building, constructed of brick, with the necessary fixtures and equipment, \$5,000.

Engineering Laboratories.—The removal of the Department of Practical Mechanics to its new buildings during the summer of 1910 left vacant in the Mechanical Engineering building the four large shop rooms which it had occupied since 1895. These rooms have been fitted up as engineering laboratories for the use of the Schools of Civil and Mechanical Engineering. In the former forge room has been assembled the equipment pertaining to gas-engine practice, including all of the leading types of internal combustion engines, a suction gas producer, a testing platform and a calorimeter room. Much new apparatus has been purchased, bringing this department to a high degree of efficiency. The former machine shop has undergone extensive changes in order to convert it into an hydraulic laboratory involving lowering the floor to the ground level, constructing a gallery, concrete floors, weirs, wells, and tanks, which with the installation of new apparatus has provided an unusually complete laboratory and an important addition to our resources for instruction. The foundry has been converted into a cement laboratory with all necessary equipment for the mixing and testing of cement and concrete and the former wood-

working shop is occupied as an extension of the steam engine laboratory, also for the installation of experimental heating and ventilating apparatus. The total cost of these changes, including considerable new equipment, has been in round numbers \$6,000. With these extensions and additions the arrangement and equipment of the engineering laboratories is exceptionally good.

Power Plant.—In order to supply the running power to the new shops and to improve the service for the whole university, a new 250 K. W. generator has been installed, together with a first-class switchboard, and the entire wiring system of the campus has been overhauled. The total cost of these improvements being \$6,000.

Experimental High Tension Transmission Line.—An experimental transmission line 1,400 feet in length designed for voltages up to 300,000 has been constructed and connected with the 300,000-volt transformer in the electrical laboratory.

Laboratory Equipment.—In all departments, the laboratories have received notable additions to equipment for instructional purposes, aggregating upwards of \$10,000 in cost.

Gifts.—Mrs. C. B. Stuart of LaFayette has given \$100 to be used for the purchase of lantern slides for the use of the German department.

The School of Electrical Engineering has been donated seven steel poles for a transmission line by the Franklin Steel Company; 3,000 feet of copper-clad steel wire for the transmission line by the Duplex Wire Company; illuminating glass by the Holopham Company; and an enamel hood for outdoor illumination, by the George Cutter Company.

The School of Mechanical Engineering has received gifts of apparatus and material valued at \$1,500, as follows: A model car truck and a model freight car coupler by the American Steel Foundries Company; coupler model from the Durbin Safety Automatic Car Coupler Company; three pressure reducing valves from the Mason Regulator Company; two Anderson steam traps from the V. D. Anderson Company; one sectional gas meter from the Sprague Meter Company; one sectional gas meter from the Metric Metal Company; one Rayfield carburetor from the Findeiser and Kropf Company; one Stuart carburetor from the Stuart Precision Carburetor Company; one all-in-one gas engine from the Alamo Manufacturing Company; one spark coil from the Central Insulating

Company; two radiators from the American Radiator Company; one lubricator from the Detroit Lubricator Company.

The Biological Department received a collection of ninety products from the Indiana Refining Company; forty specimens of wood from C. J. Getz; cottonseed products and plant material from R. D. Oilar; herbarium material from C. C. Deam; a collection of representative fungi from G. N. Hoffer; zoölogical material from Mexico from J. A. Quintero; and pathological material from many physicians.

The Civil Engineering School, in addition to donations of minor importance, has received four barrels of Portland cement from Superintendent Cook of the Louisville Portland Cement Company; an hydraulic ram from the Douglass Company, and sixty feet of six-inch special riveted steel pipe.

The Department of Chemistry received valuable gifts of dry cells from the National Carbon Company and the Nungesser Electric Battery Company.

The library received gifts of 1,105 volumes, of which 263 were from individual donors.

The School of Agriculture has received gifts of apparatus and material for the poultry department from the G. E. Lee Company; Henry D. Riple & Company; Cyphers Incubator Company; Atlanta Tin Plate and Sheet Mills; Concordia Egg Tester Company; R. R. Ragan; F. E. Myers & Brothers; Morrell and Morley; Chapman & Company; Park and Poland; Automatic Hatching Company; Zenner Disinfecting Company; The Kretol Company; Hancock Inoculum Company; J. P. Crise; Model Incubator Company; Poultry Dust Bath Company; E. Rauh and Sons; the Horticultural Department from Fried Manufacturing Company; Morrell and Morley; the Entomological Department from the B. F. Biggs Pump Company and the Turner Brass Works.

The Experiment Station has also received many donations of materials and equipment of minor character and about 150 American and foreign periodicals devoted to agriculture.

Loans.—Manufacturers of agricultural implements have generously loaned large numbers and variety of their products to the School of Agriculture, particularly for use in the department of farm mechanics and dairying. Their names are as follows: Bate-man Manufacturing Company; Aspinwall Manufacturing Company; Racine-Sattley Company; C. M. Seehler Carriage Company; Avery Manufacturing Company; Parlin and Orendorff Company;

Bucher and Gibb Plow Company; J. I. Case Threshing Machine Company; Victor Manufacturing Company; Harding and Brubeck; McElroy Post and Pole Company; Ohio Post Mold Company; Fenn Manufacturing Company; F. Miller; The Motsinger Device Company; Smith Manufacturing Company; Flint and Walling; Humane Stanchion Company; International Harvester Company of America; The N. P. Bowsher Company; Crown Point Manufacturing Company; Gehl Brothers Manufacturing Company; The New Way Motor Company; The Hagan Gas Engine and Manufacturing Company; G. L. Marshall; De Laval Separator Company; D. H. Burrell and Company; National Dairy Machine Company; Empire Cream Separator Company; Vermont Farm Machine Company; Sharples Separator Company; Omega Separator Company; International Harvester Company; Dr. N. Gerber and Company; The Deming Pump Company; The Field Force and Pump Company.

V. LEGISLATION RELATING TO THE UNIVERSITY.

The Acts of the General Assembly of 1911 contained two items directly related to the University, viz.:

1. An act approved February 27th establishing a new department of Agricultural Extension and repealing the act approved March 9, 1889, and subsequent amendments relating to Farmers' Institutes. The act provides for the "improvement and advancement of agriculture, domestic science and rural life" by appropriating \$10,000 for the fiscal year ending September 30, 1911, and \$30,000 annually thereafter to be used in "the diffusion among the people of the several counties of the State of useful and practical information on subjects connected with agriculture, domestic science and rural betterment."

It further provides that the work contemplated by the act shall be carried out through a department of Agricultural Extension under the direction of the Trustees of the University together with the President of the University, the Dean of the School of Agriculture, the Director of the Experiment Station, the Superintendent of Agricultural Extension and the Advisory Committee of the Experiment Station.

Provision is made for covering the local expenses of meetings in the several counties by directing the county commissioners to set aside for such expenses an amount not to exceed twenty-five cents for each square mile of area in the county.

The act also repeals the former statutes in operation since 1889 under which the Farmers' Institutes have been maintained, the same thus becoming merged in the larger work of agricultural extension.

2. In a detailed report upon the conditions and needs of the University submitted to Governor Marshall in November, 1911, for the information of the legislative visitation committee, the needs of the institution were summarized as follows:

- a. Increase of the mill tax for maintenance by at least fifty per cent.
- b. For a library building\$100,000
- c. For Agricultural Buildings:
 - (1) Dairy building 60,000
 - (2) Veterinary clinic 25,000
 - (3) Horticultural buildings 30,000
 - (4) Cattle and horse barns 50,000
- d. For Agricultural Extension in the School of Agriculture.. 10,000

Also, in the near future, provision for an armory and a woman's building.

The visitation committee recommended an appropriation of \$100,000 for a library building, to become available October 12, 1912; and for "maintenance in lieu of increase of tax levy" \$32,500 annually for the biennial period. These recommendations were approved by the Legislature and were included in the general appropriation bills.

VI. THE NEEDS OF THE UNIVERSITY.

The needs of the University impress themselves emphatically upon those who have knowledge of its conditions and its work. The institution is undergoing constantly a healthy growth and expansion. There is no effort on the part of its officers or faculty to unduly stimulate these conditions. The people of the State expect of the University instruction and investigation, and their calls are insistent. It is the duty, therefore, of its officers to set forth those particulars in which the institution needs aid.

Of first importance among these is the need of an increased income for maintenance. The institution now receives funds from the Federal Government; from the endowment fund, originally a gift from the Federal Government to the State; from fees of students, and from the proceeds of the mill tax under the act of Legislature. None of these sources of income increase in appreciable extent, or sufficiently to meet the increased needs of the institution.

In previous reports for successive years attention has been called to the effect upon the work of the institution in thus limiting its resources to the bare minimum, necessary to its existence. The Legislature of 1911 voted a specific appropriation for the biennial period of \$32,500 annually for maintenance "in lieu of an increase of mill tax." This appropriation will cease on September 30, 1913. It is of great importance, therefore, that it shall be understood that some permanent source of income be established to take the place of this temporary appropriation.

This increased income is needed first, because of the greatly increased cost of supplies which the University and its employes must have, second, because of the increasing numbers of instructors and employes necessitated by the growth of certain departments, third, because the salaries paid as compared with those in other institutions of like kind are low, and fourth, because under these conditions there are insurmountable difficulties in the way of maintaining an efficient faculty and teaching force.

The University has for some years put some check upon the normal increase in attendance simply because it has been thought best not to undertake larger tasks with our present resources. Even with the present attendance the teaching force is not sufficient in

numbers and is not sufficiently well paid to ensure the best results and as long as this condition continues, it will be necessary to limit in some degree the numbers who are permitted to attend the University. Under these conditions it becomes of first importance to the successful development of the institution that its income be substantially and permanently increased in the near future. The most natural and satisfactory way to bring this about is through an increase of the present mill tax by at least one-half of its present yield.

Next in importance are the needs of the School of Agriculture. For many years the University authorities have labored to establish this department of the University in the confidence of the public and in their appreciation of its usefulness. In recent years these efforts have met with gratifying results so that at the present time there is no more popular department of the institution in the public mind and probably none that is of greater direct utility in its public service. This brings a sudden and large increase in student attendance upon the School of Agriculture and where a few years ago there was abundance of room and of teaching force to care for these students, we now find the same conditions existing which prevailed a few years earlier in the Schools of Engineering, namely, a great congestion in class rooms and great demand upon the time of instructors. There must be to meet this demand as nearly as possible some additional buildings and particularly a larger area of land.

It must be remembered that an important part of the laboratory method of teaching agriculture consists in the use of live stock, of typical breeds of high grade and of sufficient gardens and orchards. To maintain herds of live stock and supply necessary areas for demonstration and experimentation, the present farm lands, amounting to but little over one hundred acres, are altogether inadequate. It is to be regretted that the founders of the University did not at that time secure a larger area for farm purposes. To do so now is a costly process but the necessity is no less urgent on this account. Other agricultural colleges of the class of Purdue find from five hundred to one thousand acres of farm land none too much to properly carry on their work. Such a statement is equally true of this institution and the attention of the Legislature to this situation can not be too strongly urged.

The buildings needed by the School of Agriculture have been enumerated in previous reports and none of these have been sup-

plied since the writing of the last report.¹ There are needed green-houses and buildings for the work of instruction in the horticultural department. It is scarcely conceivable that this department can meet the needs of its classes without any facilities for teaching greenhouse management and the various matters pertaining to the production of greenhouse products. At the present time it has no facilities of this sort whatever. There should be provided for this department a first-class greenhouse of modern construction and of sufficient capacity to make possible practical instruction in the growing of fruits, flowers and vegetables under glass.

The department also needs at the orchard a substantial building for the purposes of storage and demonstration to classes engaged in orchard work. Horticulture is becoming a prominent phase of agriculture in the minds of the people of the State and the University should be in a position to lead this increasing interest by proper instruction and demonstration.

The need of a building to be used as a veterinary clinic has been repeatedly mentioned. The Animal Husbandry interests of the State are very great and a student of this branch of agriculture must needs know, even though he does not expect to become a professional veterinarian, much concerning the anatomy and the diseases of domestic animals. Such instruction can be imparted only by practical demonstration, for which purpose a suitable building is indispensable. To meet this need which is not supplied at the present time, a building should be provided.

Cattle and horse barns are urgently needed at the farm to shelter and properly care for the live stock which is used for class instruction as well as for the utilities of the farm. These buildings should be models of their kind not only because of the value and importance of the work which they are to contain but also that they may serve for the instruction of the public as to what constitutes the best practice in the construction of farm buildings.

Attention has been repeatedly called to the need of an armory, a suitable place in which to house the equipment and conduct the instruction in military science which is imposed as a duty upon the University in connection with the grants of Federal money. Until such a building shall have been provided the State is neglecting its responsibilities in this matter. The cadet corps of the University is an efficient body of young men being trained not for

¹ Since the close of the year covered by this report, the bequest of William C. Smith of Warren County has provided means for erecting a suitable Dairy Building.

warfare but for intelligent defense of their country should occasion arise. To this work the Government contributes equipment and the services of an army officer and the efficiency of it all is nullified by the lack of any suitable indoor drill ground on which to carry on the work during the winter season.

The Biology Department occupies at the present time a building which was originally constructed for the University shops and which has successively in the process of evolution of the institution housed two or three different departments. The building was originally erected in the cheapest manner consistent with covering a large area. It is shabby and dilapidated and unsuitable for work of so fine a character as that being done in it. It is not creditable to the University to ask students of a highly developed science to occupy a building so unsuitable as this. The Biology Department furnishes instruction to students of nearly every other department of the University, particularly to those in Agriculture and General Science. It deserves better quarters and the University deserves to have in the place of the present unsightly building one which is more in keeping with the other equipment of the institution. This building constitutes one of the urgent needs and one which must be supplied in the near future.

Reference has been made in previous report to the need of a women's building. The number of women students coming to Purdue is increasing rapidly, due to their interest in the courses in Home Economics. It is probable that there will be a larger number of these in the near future. It is entirely inconsistent with the ideas of the University authorities that these young women should be left to seek homes wherever accident indicates throughout the city and village. While this is permissible for men students, it cannot be regarded as proper or suitable for women. The University feels that it must control and direct the housing of women and for this purpose will urge persistently the provision of a suitable building.

VII. FINANCIAL REPORT.

1. Receipts.

Report of the Treasurer of the Board of Trustees.

As Treasurer of the Board of Trustees of Purdue University, I hereby submit my report of moneys received during the years ending respectively June 30, and September 30, 1911. :

1. Received for Maintenance of Departments of Instruction—

(a) State Educational Tax (Genl. Fund) .	\$173,888 43	
(b) From Miscellaneous Sources	76,661 38	
(c) Interest on Endowment Fund	17,000 00	
(d) Federal Appropriations (Morrill Fund)	45,000 00	
(e) Specific Appropriations by the State for the year ending Sept. 30, 1911—		
Cash	\$13,046 53	
Warrants outstanding Sept. cashed Oct. 1, 1911	4,453 47	
	17,500 00	
		\$330,049 81

2. Received for Maintenance of the Agricultural Experiment Station—

Federal Appropriations.		
(a) Hatch Fund	\$15,000 00	
(b) Adams Fund	15,000 00	
State Appropriations for year ending September 30, 1911	75,000 00	
Miscellaneous receipts	82,436 32	
	Total	\$187,436 32

3. Received for Maintenance of Farmers' Institutes—

State Appropriations for five months ending February 28, 1911	\$7,898 97
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4. Received for Maintenance of Department of Agricultural Extension—

From March 1 to September 30, 1911.....	\$10,000 00
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5 Received for the Erection of Buildings—

Specific Appropriations by the State for the year ending September 30, 1911.

(a) For the erection and equipment of Live Stock Judging Pavilion.

Warrants to cover vouchers outstanding Sept. 30, 1910.....	\$212 15
Warrants to cover vouchers approved for year ending Sept. 30, 1911.....	354 15
Warrants outstanding Sept. 30 and cashed Oct. 4, 1911.....	287 54

Total	\$853 84
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(b) For the erection and equipment of a Building for Instruction in Shop Practice and Drawing.

Warrants to cover vouchers outstanding Sept. 30, 1910.....	\$19,936 94
Warrants to cover vouchers approved for year ending Sept. 30, 1911.....	22,727 67
Warrants outstanding Sept. 30, and cashed Oct. 4, 1911.....	3,654 01

Total	\$46,318 62
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JAMES M. FOWLER,
Treasurer of the Board of Trustees.

2. Disbursements.*Report of the Secretary of the Board of Trustees.*

As Secretary of the Board of Trustees of Purdue University, I hereby certify to the correctness of the following statements of receipts and disbursements, viz.:

1. For Maintenance of Departments of Instruction.
2. For Maintenance of the Agricultural Experiment Station.
3. For Maintenance of Farmers' Institutes.
4. For Maintenance of Agricultural Extension.
5. Specific Appropriations for the Erection of Buildings, viz.:
 - a. Buildings for Shops and Drawing Rooms.
 - b. Live Stock Judging Pavilion.

EDWARD A. ELLSWORTH,
Secretary of the Board of Trustees.

1. For the Maintenance of Department of Instruction.

A. GENERAL FUND.

Dr.

Received of the State as per report of Treasurer from June
30, 1910, to June 30, 1911..... \$173,888 43

Cr.

Books and periodicals	\$2,863 50
Care of buildings	6,875 02
Care of grounds	1,504 20
Employees' wages	17,509 71
Engineers' and firemen's wages	4,547 43
Express, freight and hauling	2,730 95
Feeding stuff	4,106 74
Fertilizer	10 63
Furniture and fixtures	689 31
Heat	175 89
Improvements	6,329 72
Fire insurance	2,297 63
Labor	4,201 11
Light	395 76
Live stock	2,617 03
Postage	778 54
Printing and stationery	145 79
Publications	5 69
Purdue railroad	48 51
Repairs	1,970 01
Salaries of instructors	94,284 63
Scientific apparatus	1,280 58
Supplies	9,184 93
Telegrams	26 03
Telephones	399 36
Tools and machinery	7,197 25
Trustees	4 25
Water	1,708 23

Total	\$173,888 43
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B. MISCELLANEOUS FUND

Dr.

Balance June 30, 1910	\$44,630 84
Received as per report of Treasurer.....	76,661 38

Total	\$121,292 22
-------------	--------------

Cr.

Books and periodicals	\$817 11	
Care of buildings	1,398 05	
Care of grounds	322 50	
Catalogues	139 66	
Commencement	547 41	
Employes' wages	4,136 05	
Engineers' and firemen's wages	999 35	
Express, freight and hauling	367 01	
Feeding stuff	1,740 63	
Furniture and fixtures	1,695 48	
Improvements	5,424 02	
Inspection trips	107 70	
Fire insurance	705 64	
Labor	1,969 31	
Lectures and convocation expenses	376 54	
Light	1,450 24	
Live stock	1,185 34	
Membership fees	77 00	
Miscellaneous	411 64	
Postage	329 98	
Printing and stationery	2,342 52	
Publications	726 26	
Purdue railway	5 61	
Rebate of fees	900 10	
Repairs	940 79	
Salaries	43,946 17	
Scientific apparatus	4,421 52	
Securing faculty	27 21	
Supplies	8,355 60	
Telegrams	9 61	
Telephones	25 95	
Tools and machinery	2,123 69	
Traveling expenses	896 32	
Trustees	663 50	
Water	758 49	
	<hr/>	
	\$90,344 00	
Balance on hand June 30, 1911	30,948 22	
	<hr/>	
Total		\$121,292 22

C. ENDOWMENT FUND.

Dr.

Receipts as per report of Treasurer	\$17,000 00
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Cr.

Paid salaries of instructors	\$17,000 00
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D. MORRILL FUND.

Dr.

Receipts as per report of Treasurer.....	\$45,000 00
--	-------------

Cr.

Paid salaries of instructors.....	\$45,000 00
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E. SPECIFIC APPROPRIATION FOR MAINTENANCE.

(For Year Ending September 30, 1911.)

Dr.

Received as per report of Treasurer.....	\$13,046 53	
Warrants drawn but outstanding Sept. 30.....	4,453 47	
	<hr/>	\$17,500 00

Cr.

Heat	\$12,492 50	
Supplies	2,325 71	
Furniture and fixtures	947 30	
Feeding stuff	697 06	
Improvements	419 40	
Books and periodicals	202 46	
Repairs	198 06	
Express, freight and hauling	99 33	
Tools, implements and machinery	73 95	
Printing and stationery	39 50	
Live stock	4 00	
Postage	68	
	<hr/>	
Total		\$17,500 00

2. For the Maintenance of the Agricultural Experiment Station.

A. FEDERAL APPROPRIATIONS.

Dr.

Received as per report of Treasurer—	
From the Hatch Fund	\$15,000 00
From the Adams Fund	\$15,000 00

Cr.

Salaries	\$9,235 00	\$11,450 00
Labor	973 51	47 55
Publications	1,348 19
Postage and stationery	278 40	20 02
Freight and express	30 35	61 61
Heat, light, power, water	223 47
Chemicals and laboratory supplies	214 99	372 12
Seeds, plants and sundry supplies	378 15	704 51
Fertilizers	2 25
Feeding stuffs

Library	\$167 53	\$123 07
Tools, machinery, etc.	278 47	3 40
Furniture and fixtures	36 70
Scientific apparatus and specimens	513 03	274 33
Live stock	486 15	1,308 84
Traveling expenses	246 10	297 95
Buildings and land	587 71	336 60
Totals	\$15,000 00	\$15,000 00

B. STATE APPROPRIATIONS.

(For the Year Ending September 30, 1911.)

a. For Agricultural Extension.

Dr.

Received as per report of Treasurer for year ending Sep- tember 30, 1911	\$10,000 00
---	-------------

Cr.

Buildings	\$47 29
Contingent expenses	46 97
Freight, express and hauling	432 57
Furniture and fixtures	146 45
Heat	114 88
Labor	1,345 34
Postage	296 50
Printing and stationery	1,642 14
Publications	772 63
Salaries	2,780 17
Scientific apparatus	100 00
Supplies	837 49
Tools	22 35
Traveling expenses	1,415 22
Total	\$10,000 00

b. For Animal Diseases.

Dr.

Received as per report of Treasurer	\$5,000 00
---	------------

Cr.

Buildings	\$875 93
Chemical supplies	7 22
Labor	988 70
Live stock	352 19
Printing and stationery	7 00
Salaries	2,758 31
Supplies	10 65
Total	\$5,000 00

*c. For Crop and Soil Improvement.***Dr.**

Received as per report of Treasurer.....	\$15,000 00
--	-------------

Cr.

Buildings	\$5,000 00
Chemical supplies	21 40
Contingent expenses	16 80
Fertilizer	193 41
Freight, express and hauling	290 00
Furniture and fixtures	390 20
Heat	119 38
Labor	2,109 38
Library	19 35
Postage	124 67
Printing and stationery	230 51
Salaries	5,130 56
Scientific apparatus	43 00
Supplies	576 91
Tools	217 88
Traveling expenses	516 46

Total	\$15,000 00
-------------	-------------

*d. For Dairy Interests.***Dr.**

Received as per report of Treasurer.....	\$10,000 00
--	-------------

Cr.

Buildings	\$1,295 05
Chemical supplies	11 28
Contingent expenses	13 05
Feeding stuff	1,784 06
Freight express and hauling	54 81
Furniture and fixtures	48 38
Heat	111 70
Library	6 29
Labor	2,415 08
Live stock	34 00
Postage	88 11
Printing and stationery	42 65
Publications	33 80
Salaries	3,343 16
Scientific apparatus	74 25
Supplies	380 37
Tools	2 75
Traveling expenses	261 21

Total	\$10,000 00
-------------	-------------

e. For Horticultural Interests.

Dr.

Received as per report of Treasurer.....	\$10,000 00
--	-------------

Cr.

Buildings	\$313 58
Chemical supplies	37 10
Contingent expenses	40 08
Fertilizer	2 00
Freight, express and hauling	128 60
Furniture and fixtures	102 92
Heat	113 89
Labor	2,067 97
Library	31 00
Postage	102 62
Printing and stationery	58 52
Publications	36 66
Salaries	5,058 31
Scientific apparatus	12 03
Supplies	873 75
Tools	216 16
Traveling expenses	804 81

Total	\$10,000 00
-------------	-------------

f. For Live Stock Feeding.

Dr.

Received as per report of Treasurer.....	\$10,000 00
--	-------------

Cr.

Buildings	\$10 80
Contingent expenses	2 45
Feeding stuff	2,520 49
Freight, express and hauling	3 57
Heat	110 97
Labor	1,345 87
Library	4 73
Live stock	1,536 00
Postage	38 92
Printing and stationery	98 98
Salaries	4,124 99
Supplies	49 49
Traveling expenses	152 74

Total	\$10,000 00
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g. For Poultry Interests.

Dr.

Received as per report of Treasurer.....	\$5,000 00
--	------------

Cr.

Buildings	\$1,347 24	
Contingent expenses	7 95	
Feeding stuff	345 48	
Freight, express and hauling	33 11	
Furniture and fixtures	262 68	
Heat	41 79	
Labor	274 61	
Light	16 14	
Live stock	167 05	
Postage	70 00	
Printing and stationery	24 40	
Salaries	2,100 02	
Scientific apparatus	34 05	
Supplies	217 98	
Tools	7 40	
Traveling expenses	50 10	
	<hr/>	\$5,000 00

h. General.

Dr.

Received as per report of Treasurer.....	\$10,000 00
--	-------------

Cr.

Buildings	\$2,089 59	
Contingent expenses	50	
Feeding stuff	29 52	
Freight, express and hauling	13 50	
Furniture and fixtures	90 27	
Labor	2,266 07	
Library	101 18	
Light	101 36	
Postage	113 55	
Printing and stationery	415 41	
Publications	1,381 95	
Salaries	2,930 00	
Supplies	465 15	
Tools	1 15	
Traveling expenses	80	
	<hr/>	\$10,000 00

C. MISCELLANEOUS FUND.

Dr.

Balance on hand June 30, 1910.....	\$10,642 63
Received on account of fertilizer inspection.....	26,583 50
Received from miscellaneous sources.....	28,575 44

Total	\$65,801 57
-------------	-------------

Cr.

Salaries	\$5,627 20
Labor	3,647 27
Publications	1,906 88
Postage and stationery	3,262 56
Freight and express	521 56
Heat, light, water and power	703 63
Chemicals and laboratory supplies	1,204 78
Seeds, plants and sundry supplies	1,823 24
Feeding stuffs	3,446 36
Library	289 90
Tools, machinery and appliances	172 26
Furniture and fixtures	456 54
Scientific apparatus and specimens	62 41
Live stock	7,931 82
Traveling expenses	1,838 50
Contingent expenses	501 51
Buildings and land	15,398 47

Total	\$48,794 89
-------------	-------------

Balance on hand June 30, 1911	17,006 68
-------------------------------------	-----------

Total	\$65,801 57
-------------	-------------

D. FEEDING STUFF CONTROL FUND.

Dr.

Balance on hand June 30, 1910.....	\$1,715 74
Received on account of commercial feeding stuff inspection	27,277 38

Total	\$28,993 12
-------------	-------------

Cr.

Buildings and repairs	\$193 74
Chemical supplies	240 47
Contingent expenses	179 48
Freight, express and hauling	115 31
Furniture and fixtures	529 67
Heat	132 30

Labor	\$2,130 38
Library	70 47
Postage	225 12
Printing and stationery	4,172 70
Publications	136 50
Salaries	6,953 84
Scientific apparatus	93 73
Supplies	2,561 33
Tools, etc.	14 61
Traveling expenses	2,256 05
Rebate on tags	11 87

Total	\$20,017 57
Balance on hand June 30, 1911	8,975 55

Total	\$28,993 12
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3. For the Maintenance of Farmers' Institutes.

(For Five Months Ending February 28, 1911.)*

Dr.

Received as per report of Treasurer.....	\$10,000 00
--	-------------

Cr.

Mileage and per diem of speakers	\$5,934 03
Salary of superintendent	750 00
Expenses of annual conference, 1910	618 25
Clerical work	200 85
Printing, stationery and postage	127 05
Printing annual report, 1909-1910	124 14
Traveling expenses of superintendent	96 55
Express, freight and hauling	15 89
Telegrams and telephones	12 61
Speakers' charts	10 60
Membership dues, Association of Institute Workers	5 00
Supplies	4 00

Total	\$7,898 97
Treasurer's check for balance	2,101 03

Total	\$10,000 00
-------------	-------------

* By act of Legislature, the statute governing Farmers' Institutes was repealed April 28, 1911.

4. For the Maintenance of Agricultural Extension.

(From March 1 to September 30, 1911.)

Dr.

Received from Auditor of State	\$10,000 00
--------------------------------------	-------------

Cr.

Buildings	\$3 15
Contingent expenses	48 15
Freight, express and hauling	63 79
Furniture and fixtures	608 60
Labor, daily and monthly	968 72
Postage	123 75
Printing and stationery	443 60
Publications	1,224 02
Salaries	4,347 08
Scientific apparatus	60 25
Supplies	686 36
Tools, implements and appliances	665 77
Traveling expenses	756 76

Total	\$10,000 00
-------------	-------------

5. Specific Appropriation for the Erection of Buildings.

(For Year Ending September 30, 1911.)

A. BUILDING FOR SHOPS AND DRAWING ROOMS.

Dr.

Received as per report of Treasurer	\$22,727 67
Warrants drawn but outstanding September 30....	3,654 01

Total	\$26,381 68
-------------	-------------

Cr.

Tools, implements and machinery	\$15,210 12
Furniture and fixtures	6,536 71
Gas and electric system	2,064 45
Heating and ventilating systems	1,199 82
Builders' estimates	452 37
Express, freight and hauling	158 37
Building and equipment	435 21
Scientific apparatus	153 01
Power	113 26
Repairs	37 76
Installing machinery	19 85
Telegrams	75

Total	\$26,381 68
-------------	-------------

B. LIVE STOCK JUDGING PAVILION.

Dr.

Received as per report of Treasurer	\$354 15	
Warrants drawn but outstanding September 30...	287 54	
	<hr/>	
Total		\$641 69

Cr.

Lighting system	341 25	
Building and equipment	240 44	
Heating system	60 00	
	<hr/>	
Total		\$641 69

TWENTY-SECOND ANNUAL REPORT

OF THE

Board of State Charities

OF INDIANA

FOR THE YEAR ENDING SEPTEMBER 30,
1911

TO THE GOVERNOR

INDIANAPOLIS :
WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING
1912

THE STATE OF INDIANA.

EXECUTIVE DEPARTMENT.

FEBRUARY 2, 1912.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE.

INDIANAPOLIS, February 3, 1912.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,

Auditor of State.

FEBRUARY, 5, 1912.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE.

Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana. February 5, 1912.

L. G. ELLINGHAM,

Secretary of State.

Received the within report and delivered to the printer February 5, 1912.

ED D. DONNELLY.

Clerk Printing Board.

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ROSTER OF THE BOARD OF STATE CHARITIES.

1889-1911.

PRESIDENTS.

	<i>From</i>	<i>To</i>
GOVERNOR ALVIN P. HOVEY.....	1889	1891
GOVERNOR IRA J. CHASE.....	1891	1893
GOVERNOR CLAUDE MATTHEWS.....	1893	1897
GOVERNOR JAMES A. MOUNT.....	1897	1901
GOVERNOR WINFIELD T. DURBIN.....	1901	1905
GOVERNOR J. FRANK HANLY.....	1905	1909
GOVERNOR THOMAS R. MARSHALL.....	1909	—

MEMBERS.

	<i>From</i>	<i>To</i>
OSCAR C. McCULLOCH, Indianapolis*†.....	Mar. 1, 1889	Dec. 11, 1891
MRS. C. W. FAIRBANKS, Indianapolis*.....	Mar. 1, 1889	Apr. 19, 1893
MRS. MARGARET F. PEELLE, Indianapolis*....	Mar. 1, 1889	Apr. 1, 1903
E. B. MARTINDALE, Indianapolis*.....	Mar. 1, 1889	May 3, 1890
TIMOTHY NICHOLSON, Richmond*.....	Mar. 1, 1889	Jan. 28, 1908
JOHN R. ELDER, Indianapolis*†.....	Mar. 1, 1889	Mar. 18, 1902
STOUGHTON A. FLETCHER, Indianapolis†.....	May 3, 1890	Oct. 25, 1893
REV. T. M. WILES, Greensburg.....	Dec. 11, 1891	Mar. 1, 1895
DEMARCHUS C. BROWN, Indianapolis.....	Oct. 25, 1893
MARY A. SPINK, M. D., Indianapolis.....	May 13, 1893	Apr. 1, 1904
AQUILLA JONES, Indianapolis.....	Mar. 1, 1895	May 5, 1896
THOMAS E. ELLISON, Fort Wayne.....	May 5, 1896	Nov. 19, 1901
WILLIAM P. COOPER, Fort Wayne.....	Nov. 19, 1901	Mar. 5, 1907
SYDNEY B. DAVIS, Terre Haute.....	Mar. 18, 1902	Mar. 1, 1908
MRS. ELLA B. MCCOY, Indianapolis†.....	Apr. 1, 1903	Nov. 1, 1903
MRS. CARRIE GOODWIN REXFORD, Indianapolis.	Nov. 1, 1903	Mar. 1, 1909
SARAH STOCKTON, M. D., Indianapolis.....	Apr. 1, 1904	Mar. 5, 1907
REV. FRANCIS H. GAVISK, Indianapolis.....	Mar. 5, 1907
MARY A. SPINK, M. D., Indianapolis.....	Mar. 5, 1907
JOHN H. HOLLIDAY, Indianapolis.....	Jan. 28, 1908
W. H. EICHHORN, Bluffton.....	Nov. 11, 1908
MRS. EMMA LEE ELAM, Indianapolis.....	Oct. 1, 1909

SECRETARIES.

	<i>From</i>	<i>To</i>
ALEXANDER JOHNSON.....	Mar. 25, 1889	July 1, 1893
ERNEST P. BICKNELL.....	July 1, 1893	Jan. 1, 1898
AMOS W. BUTLER.....	Jan. 1, 1898

*Charter member. †Deceased

THE BOARD OF STATE CHARITIES.

1912.

GOVERNOR THOMAS R. MARSHALL, President, Ex-officio.

	<i>Expiration of Term.</i>	
DEMARCHUS C. BROWN, Indianapolis.....	March	1, 1912
EMMA LEE ELAM, Indianapolis.....	October	1, 1912
FRANCIS H. GAVISK, Indianapolis.....	March	1, 1913
MARY A. SPINK, M. D., Indianapolis.....	March	1, 1913
JOHN H. HOLLIDAY, Indianapolis.....	November	1, 1914
W. H. EICHHORN, Bluffton.....	November	1, 1914
AMOS W. BUTLER, Secretary.		

STANDING COMMITTEES OF THE BOARD FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1912.

- On Penal and Reformatory Institutions.*—Demarchus C. Brown, John H. Holliday, W. H. Eichhorn.
- On Hospitals for the Insane.*—Francis H. Gavisk, Mary A. Spink, M. D., W. H. Eichhorn.
- On Institutions for Defectives, Soldiers' Home and Soldiers' and Sailors' Orphans' Home.*—John H. Holliday, Francis H. Gavisk, Emma Lee Elam.
- On County Institutions.*—W. H. Eichhorn, Emma Lee Elam, Demarchus C. Brown.
- On Statistics and Publications.*—Francis H. Gavisk, Mary A. Spink, M. D.
- On Auditing.*—Demarchus C. Brown, Emma Lee Elam.
- On Children.*—John H. Holliday, Mary A. Spink, M. D.

LETTER OF TRANSMITTAL.

INDIANAPOLIS, IND., February 1, 1912.

Hon. Thomas R. Marshall, Governor of Indiana:

Dear Sir—In compliance with law, the Board of State Charities has the honor to submit herewith its twenty-second annual report, being for the twelve months ending September 30, 1911.

Respectfully,

W. H. EICHHORN,
EMMA LEE ELAM,
DEMARCHUS C. BROWN,
MARY A. SPINK,
FRANCIS H. GAVISK,
JOHN H. HOLLIDAY,

The Board of State Charities.

AMOS W. BUTLER,
Secretary.

GENERAL REPORT OF THE BOARD.

No change in the personnel of the Board of State Charities occurred during the past fiscal year. Of the present members, Demarchus C. Brown has been connected with the board for eighteen years, Dr. Mary A. Spink fifteen years, the Reverend Francis H. Gavisk four years, W. H. Eichhorn and John H. Holliday each three years and Mrs. Emma Lee Elam two years.

The board has at all times striven faithfully to carry out the spirit and purpose of the law by which it was created. Through frequent reports and visits it has kept watch over the State's wards and the expenditure of public funds in their behalf; it has informed the Governor and through him the Legislature the facts learned in its inspections; it has endeavored to represent the public and at the same time to protect the management of the institutions from undeserved criticism. These things have involved time and thought, yet the board has never lost sight of the equally important duty of seeking the causes that contribute to public dependency, with a view to recommending to the General Assembly preventive legislation. The steady progress of Indiana's charities and the active public interest in them are reasons for congratulation. There are bad conditions, it is true. From time to time there come to our notice instances of serious neglect of the unfortunate and helpless inmates of institutions. We repeatedly encounter ignorance of or indifference to the real purpose of our charities. There are in short many defects in our system, yet in glancing over the whole field and comparing conditions of today with those which existed even a decade ago, one can not fail to be impressed with the advance which has been made.

The year which closed September 30th witnessed considerable progress in one way and another. The General Assembly held its regular biennial session in January and February and several laws of special interest to social workers were passed. Some of the more important are a good adoption law and a school transfer law for the benefit of dependent and neglected children; one which looks to the prevention of infant blindness; a child labor law which is a distinct advance, though not all that was desired by the Indiana Child Labor Committee; provision for a police court matron in each of the five larger cities of the State; a law which

will admit of our board being made a party defendant in the Hogston will case; also the following which particularly affect the State institutions:

The list of children eligible to admission to the Soldiers' and Sailors' Orphans' Home at Knightstown is extended to include orphan children of soldiers and sailors in the United States regular service, and grandchildren of soldiers and sailors if the father or mother is dead.

A portion of the Soldiers' Home law was re-enacted. It places a much needed restriction on the admissions by requiring five years' residence in the State prior to application and by extending the benefits of the Home only to wives and widows where the contract of marriage was entered into more than two years prior to the passage of the act, and to widows only who are more than forty-five years of age. The same law also permits the board of trustees to require of each member all his pension money in excess of a certain fixed amount except where such member has a dependent wife or child.

The Indiana Girls' School commitment law is amended in two or three important particulars. The board is given authority to return to her county any girl who within six months after her commitment is found to be epileptic, insane, feeble-minded, paralytic or pregnant; also to continue after-supervision until girls are twenty-one years of age. Power is also conferred upon the board of trustees to transfer temporarily to the Woman's Prison any girl over eighteen years of age who was committed for crime and whose presence in the school is detrimental.

The new law affecting the School for Feeble-Minded Youth restricts the benefits of that institution to children who are feeble-minded or idiotic and are between the ages of six and sixteen years. The list heretofore has included epileptic and paralytic children and no minimum age limit was fixed. The board is also permitted to collect payment for support or partial support of feeble-minded women from their parents or estate where the conditions permit.

A law was passed which provides for the transfer to the State Prison of the life men now at the Reformatory and fixes upon the former institution as the place to which such men shall hereafter be committed.

The law establishing the hospital for insane criminals at the State Prison was amended by changing the requirement that the physician placed in charge shall have had at least three years' practical experience with the insane, to read: "No physician

shall be appointed to this position who is not regularly licensed to practice his profession in the State of Indiana.”

The Reformatory trade school law of 1905 was amended by providing for more extensive use of the goods manufactured there. The Board of Classification, whose duty it is to fix the prices for these goods, will be composed hereafter of the Reformatory superintendent, the president of his board of trustees and the superintendent of each of two other State institutions, to be designated annually by the Governor. Under the old law this duty devolved upon the Governor, the Auditor of State and the president of the Reformatory board of trustees.

A new law which affects all the State institutions enables the several boards of trustees, with the consent of the Governor, to acquire by condemnation proceedings any real estate deemed necessary or desirable for the welfare of the institutions. Another permits them to withhold payment to contractors until all sub-contractors and laborers are paid.

The appropriation act makes provision for the exchange of articles among the State institutions. This will be satisfactory if carefully guarded, but there is opportunity for abuses growing out of it which can be avoided only by the most careful administration. In our March, 1911, bulletin, in which these new laws are printed, we have urged the State institution authorities to give special attention to the appropriation act and the provision for the reversion of funds. Items of special interest in this act are \$75,000 for a chapel and for repairs to the men's building at the Central Hospital for Insane; \$10,000 for land and \$25,000 for an electro-hydro-therapeutic addition and equipment at the Northern Hospital for Insane; \$40,000 for barns and improving the grounds of the new Southeastern Hospital for the Insane; \$10,000 for a cottage for nurses at the Soldiers' Home; \$59,800 for additional buildings, equipment and improvement of the Village for Epileptics; \$60,000 for a new hospital at the School for Feeble-Minded Youth; \$39,710.70 for additional buildings and equipment at the new School for the Deaf; \$22,175 for additional buildings and equipment at the Tuberculosis Hospital and the necessary maintenance funds to enable the institution to be opened April 1, 1911. A new provision in the appropriation bill will enable the State institutions to use any insurance received in case of loss by fire. The purchase of articles from the Reformatory trade schools is exempted from the general requirement concerning competitive bids.

No additional provision was made for the insane. The appropriation act, however, authorizes the Governor, if the condition of the treasury permits it, to expend \$75,000 in the establishment of a colony in connection with one of the existing hospitals. This contingent provision looks in the right direction.

The Legislature in accepting the donation of Dr. and Mrs. Robert W. Long, of Indianapolis, made provision for one new State institution, to be named the Robert W. Long Hospital of Indiana University. If a pavilion for crippled and deformed children could be connected with this institution it would be a fine solution of a difficult problem. We have so suggested to those who are interested in the erection of the new institution.

Several bills which have to do with the general welfare of children became laws. The more important deal with public playgrounds, industrial education, increased support of free kindergartens, medical inspection of school children, night schools, sanitary school houses, and the teaching of hygiene. Provision was made in the appropriation act for the purchase of a site for a State industrial school for negro children, if the condition of the general fund permits it. Of interest also are the new "white slave" law, the law prohibiting "the third degree," the provision for Pasteur treatment for the poor, and the establishment at State expense of five additional free employment offices.

It was gratifying to see the interest taken in the bill which was introduced by Senator Commons, from Wayne County, looking to the establishment of a State penal farm. The Richmond Commercial Club took the initiative in interesting commercial organizations throughout the State and the idea was favored by all, as well as by many of the sheriffs. The bill failed to pass, but a concurrent resolution was adopted by authority of which a commission was appointed to study the needs and report to the next General Assembly.

The present township poor relief laws were not changed, the only legislation on this subject being a law which extends the term of office of the present trustees until December 31, 1914, making six years in all, and another which provides for office and clerk hire where such are needed. A number of trustees, who did not realize what its ultimate effect would be, attempted to secure the passage of a law which would have meant a fundamental change in the present system. Fortunately the bill failed.

As required by law we include in this report our recommendations to the next General Assembly. The following is a summary of what appears in more detail on other pages:

1. A law providing for colony care for the chronic insane.
2. A law abolishing the fee system in county jails.
3. District workhouses under State control for short-term male offenders.
4. A State institution for dependent children and special provision for children who are sick, crippled or otherwise non-placeable.
5. A law requiring that all convicted women misdemeanants shall be sent to the Correctional Department of the Woman's Prison.
6. A law requiring judges to visit the State penal and correctional institutions.
7. An amendment to the State institution law which will provide for unpaid boards of trustees.
8. A commission to investigate the condition and needs of the adult blind.
9. Deportation of nonresident dependents and delinquents.
10. Provision for less severe penalties for petit larceny and burglary.
11. Future development of the Village for Epileptics.
12. More thorough supervision of the wards of the State who have gone out from its several institutions.

The extent of the public charities and corrections of Indiana is here shown:

State Institutions—

Present September 30, 1911.....	10,904
Temporarily absent	897
Total enrolled	11,801
Present in poor asylums August 31, 1911.....	3,009
Present in jails September 30, 1911.....	1,255
Present in orphans' homes September 30, 1911.....	1,560
Estimated population of town and city lockups September 30, 1911..	100
Aided by township trustees during 1910.....	43,227
Brought into school by truant officers during 1910-11.....	22,919
Total	83,871

The following is the expense incurred by the above agencies:

State Institutions—		
Maintenance	\$2,109,833 44	
New buildings and permanent improve- ments	274,845 00	
		\$2,384,678 44
County Poor Asylums—		
Maintenance	\$464,551 88	
New buildings and permanent improve- ments	107,820 51	
		572,372 39
Dependent Children—		
Orphans' homes:		
Maintenance	\$200,128 76	
New buildings and permanent improve- ments		
Agency of Board of State Charities.....	12,498 33	
		212,627 09
County Jails (State Statistician's Report)—		
Boarding prisoners	\$131,990 04	
All other jail expenses.....	80,465 15	
		212,455 19
Salaries of truant officers.....		32,965 00
Outdoor poor relief		266,181 16
Total		\$3,681,279 27

It is interesting to glance over the statistics of the past twenty years and note the rapid growth of the State institutions and the decrease in the population of county institutions. At the close of the present fiscal year there were 10,904 persons in State and 5,824 in county institutions, a total of 16,728. Indiana's population according to the census of 1910 is 2,700,876. On this basis there are 61.9 persons in institutions to every 10,000 inhabitants of the State. Ten years ago the same class of institutions had 14,057 inmates and twenty years ago 10,771. The average per ten thousand in 1901 was 55.8, in 1891, 49.1. In 1891 the number of inmates in county institutions averaged 22.2 to every 10,000 total population; in 1911, 21.5. In 1891 the State institution inmates averaged 26.9 to every 10,000 total population; in 1911, 40.4. Since 1891 there has been both a relative and an actual decrease in the population of the poor asylums, the Soldiers' and Sailors' Orphans' Home and the schools for the deaf and blind. The number of dependent and neglected children in orphans' homes shows an actual gain of 545, or 50 per cent., but is little greater in pro-

portion to the State's population. Because of increased facilities the number of feeble-minded, epileptic and insane receiving State care is more than double. It has also increased much more rapidly than the State's population. The State Prison and Reformatory population has increased from 1,371 to 2,296 and from 6.3 to 8.5 per 10,000. This is due in part at least to the fact that the worst class of prisoners, particularly the degenerates, are serving longer time. It is indeed a matter of record that fewer prisoners are committed to State prison now than in former years. The two State schools for boys and girls show an increase in numbers but a decrease in proportion to the State's population. The number in the ninety-two county jails and the one county workhouse has doubled both actually and relatively.

In the following table these figures are given more in detail.

INMATES OF STATE AND COUNTY INSTITUTIONS.

INSTITUTIONS.	1891.		1901.		1911.	
	No. of Inmates.	In 10,000.	No. of Inmates.	In 10,000.	No. of Inmates.	In 10,000.
County poor asylums.....	3,253	14.8	3,091	12.3	3,009	11.1
Orphans' homes.....	1,015	4.6	1,690	6.7	1,560	5.8
Soldiers' and Sailors' Orphans' Home.....	592	2.7	630	2.5	397	1.5
Soldiers' Home.....			577	2.3	946	3.5
Schools for the deaf and blind.....	401	1.8	453	1.7	396	1.5
School for Feeble-Minded Youth.....	358	1.7	795	3.2	1,199	4.5
Village for Epileptics.....					114	.4
State hospitals for the insane.....	2,441	11.1	3,665	14.6	4,655	17.2
State Prisons and Reformatory.....	1,371	6.3	1,805	7.2	2,296	8.5
Reform schools.....	740	3.4	665	2.6	901	3.3
County jails and one workhouse.....	600	2.7	686	2.7	1,255	4.6
Total.....	10,771	49.1	14,057	55.8	16,728	61.9
Population of State.....	2,192,404		2,516,462		2,700,876	

In the work of this board the great State charitable and correctional institutions have been its first consideration. They represent a total investment of more than twelve and one-quarter million dollars and an annual expenditure for maintenance averaging nearly \$200 for each inmate. The maintenance cost alone this year amounted to \$2,109,833.44; new buildings and permanent improvements caused an additional expenditure of \$274,845. The grand total expense was \$2,384,678.44. The average daily attendance of inmates was 10,699.79 and of officers and employes 1,899.44. Because it would have prevented an exact comparison with the preceding twelve months, we have not included in the

above totals the statistics of the State Tuberculosis Hospital, at Rockville, which was in operation only a portion of the year. On September 30th this hospital had ninety-six patients. Since its opening its expenditures for maintenance have amounted to \$24,-144.09, for permanent improvements \$11,087.50. Its daily average attendance for the period was sixty.

As required by the appropriation act, the board certified to the Auditor of State the population of certain of the State institutions for the fiscal year ending September 30, 1911. The amounts which became available for additional maintenance and the attendance on which they were based, are as follows:

Institution.	Excess over specified average attendance.	Rate per capita per month.	Amount.
Northern Hospital	931.774	\$15.000	\$13,976 61
Eastern Hospital	526.801	15.000	7,902 02
Southern Hospital	1,002.323	13.333	13,363 97
Southeastern Hospital*	7,244.064	18.750	135,826 20
Epileptic Village*	1,392.913	23.833	33,197 29
School for Feeble-Minded Youth...	1,775.081	10.833	19,229 45
State Prison	2,129.130	10.000	21,291 30
Reformatory	2,299.179	10.000	22,991 79
Woman's Prison	611.296	16.666	10,187 85
Indiana Girls' School	895.966	14.583	13,065 87
Indiana Boys' School	1,082.691	12.916	13,984 03
Total			\$305,016 38

In no single recent year have there been so many changes in the heads of these institutions as in 1911. The resignation of three superintendents, the death of two and the opening of one new institution resulted in six new appointments. Of the sixty-four members of boards of trustees in office a year ago, forty-eight are still serving the State in this capacity and there are sixteen new appointees. Early in the fiscal year the Governor appointed a board of three trustees for the new Tuberculosis Hospital, two of whom served on the commission which constructed the buildings.

Probably the most pressing need among the State institutions at this time is additional facilities for the care and treatment of the insane. Some relief has been obtained by redistricting the State for hospital purposes, but this is only temporary. The use of psychopathic hospitals for the treatment of patients in the in-

*Based on average actually present each month.

ipient stages of insanity and of colonies for chronic cases has passed the experimental stage. Indiana should take her place with other States in the forefront of the movement for these advance methods. Attention is directed to the statistics of this class of State wards appearing in another part of this report.

The State Charities Aid Association of New York recently conducted an examination into the fiscal control exercised by the States of New York, Indiana and Iowa over their respective State institutions. A report of the investigation was issued during the past year by the Russell Sage Foundation. Our board has been congratulated upon the excellent showing made therein by the Indiana institutions. The investigation was carried on by Mr. Henry C. Wright. With the approval of Governor Marshall he visited thirteen of our State institutions, some of them more than once. His report is a notable document. It is the first accurate comparative investigation of the kind that has been made. A fair interpretation of its significance is that the methods and the records of fiscal affairs in Indiana State institutions are surprisingly uniform. While Iowa and New York have a higher standard of specifications for requirements Indiana more nearly receives what she buys than they and has a more economical system of receiving, caring for, issuing and using supplies.

A brief statement concerning each of the State institutions follows. In other parts of the report will be found statistics of their population and expense:

Central Hospital for Insane, Indianapolis.—For the first time in many years the average number of patients is less than the hospital capacity. As a result the hospital has made more progress than usual. More and better work is being done in the pathological laboratory and the results are being published in book form. The records of the hospital have been improved. Investigations into the personal and family history of all new patients are being conducted and as time permits the old records will be taken up. A card record for ready reference has been established for each of the physicians in charge. We should like to see a better system of issuing supplies and of receipting for them by the heads of the different departments. The present plan is laborious and in case of carelessness or mistakes it does not afford proper protection to the superintendent or the board of trustees. Considerable has been done to put the grounds and buildings in better condition, but there are still many undesirable features.

Northern Hospital for Insane, Logansport.—The increase in population in northern Indiana, particularly in Lake County, has been a severe strain upon the facilities of this hospital. Some relief has been afforded recently by the Governor's action in redistricting the State, but this relief is only temporary. The specific appropriations for improvements appear to have been used to good advantage. The new pathological laboratory is a credit to the management. The patients here are given a great deal of outdoor life. We have been especially interested in the men's colony building. If this could be moved farther away from the central plant, where it would have more independence and would afford freer life for the patients, we believe better results would follow. This building demonstrates what is possible under colony care. During the past year a part of the hospital orchard has been cultivated under the direction of the agricultural department of Purdue University, as a result of which the trees have produced abundant crops.

Eastern Hospital for Insane, Richmond.—The minor repairs and the equipment have been maintained at a very good standard. The outside lighting system has been much improved and considerable painting has been done during the year. The new sanitary piggery is quite satisfactory. It was built at an expense of not more than \$400 in addition to the work done by the patients. We have frequently spoken of the excellent cold storage and ice plant at this hospital. It was the first to be installed and has probably cost less both for operation and for repairs than any other in the State. The patients receive careful attention. The men's department is still overcrowded and it has been necessary to suspend a number of applications for admission. In the women's department there are some vacancies. Up to the close of the fiscal year the hospital had experienced no benefit from the redistricting of the State. While sixty-two patients were transferred to Madison, ninety-three were received from Logansport. Other changes will take place early in the coming fiscal year.

Southern Hospital for Insane, Evansville.—The main building of the hospital for the sick has been completed, contracts have been let for the hydrotherapeutic additions contemplated and it is understood that this new department will be ready for occupancy early next spring. It will have room for sixty beds. There has been considerable delay in the erection of this building on account of the bids received exceeding the sum appropriated, \$60,000, but

the contract was finally awarded in December, 1910, and with considerable help from patients, the building was completed and a small balance returned to the general fund. A recently purchased herd of Holstein cows and a new dairy barn are a valuable addition to the hospital equipment. The farm and garden yielded an abundance of vegetables this year. The poor construction of the cold storage plant is becoming very apparent. In different parts of the hospital there is a lack of neatness and cleanliness and of attention to minor repairs. From time to time we have noted a lack of discipline. There are not enough employes for the proper conduct of the institution. In our opinion at least two more physicians are needed and additional help should be provided for the laundry. The tendency of the institution appears to be toward asylum rather than hospital care. A number of changes have occurred in the staff of officers during the year. Among others the hospital lost the services of Dr. John F. Glover, the assistant physician, who had served the institution faithfully for twelve years, and of Dr. Arley I. Munson, who had been in charge of the department for women for eighteen months.

Southeastern Hospital for Insane, North Madison.—We have spoken in former reports of the location and plan of this fine new hospital. The State is deeply indebted to the commission, which with the expert advice of Dr. S. E. Smith, had charge of its construction. At the close of the year it had 757 patients. The management has met with many hindrances, including unfamiliarity with the buildings and their equipment, the unfortunate selection of some of the officers and help, and the difficulty of maintaining harmonious co-operation. It is possible, however, to make this one of the best managed hospitals in the country. The heating, lighting, water supply and sewage disposal are very satisfactory, and the health of the patients in general is good. The system of printing the requirements of the institution and sending copies to bidders with blank forms for their bid has been adopted here and is a very good thing. The daily reports from the various departments are in good form and well filled. A small herd of Holsteins has been purchased. We learned on a recent visit that the management was planning to tear down an old mansion on the grounds. We suggested that this building could be utilized as an outside cottage for a small group of women patients, and would answer such a purpose as well as a building costing several thousand dollars.

Soldiers' Home, Lafayette.—Col. W. S. Haggard, who had been at the head of this institution since May 1, 1909, died July 6, 1911. He was succeeded by D. B. Kehler, who had served the Home as adjutant for thirteen years. The new law requiring five years' residence in Indiana immediately preceding the date of application for admission will doubtless have a beneficial effect in carrying out the original intention of the Home. The State for years has been supporting as members of this institution a number of persons who located in Indiana with the intention of applying later for admission to the Home, and who under the old law easily acquired the necessary legal settlement. This year, for the first time since the Home was opened in 1896, there is a decrease in the average daily attendance. In general the members seem contented. While maintaining the discipline necessary to protect their rights, the Commandant permits them a great deal of personal liberty. Apparently everything possible is done for their comfort and happiness. There are some conditions at the institution which are not entirely satisfactory. They are due in some degree to the fact that much of the work is done by the members, most of whom are advanced in age. On the whole, conditions are much better than they have been for several years.

Soldiers' and Sailors' Orphans' Home, Knightstown.—By reason of its natural advantages, attractive surroundings and promising children, this is one of the "show" institutions of the State. Unfortunately very objectionable conditions have developed there in recent years. There is a lack of good system in the fiscal affairs. In the purchase of supplies the practice has not been in accordance with recognized methods or with the law. The discipline is not what it should be, and the children do not receive the care and training they need. The institution is run on an expensive basis. There has been some change for the better in the fiscal affairs since the appointment of the present clerk, but the situation still is not creditable to the board of trustees, upon whom the responsibility falls. Early in the summer Dr. W. T. Stott, superintendent, was succeeded by Mr. P. P. Stultz. Dr. Stott had been in charge of the Home three years and was held in high regard. He was hampered in his work and broke down under it. Mr. Stultz has been a teacher and superintendent of schools, and, in recent years, a farmer. He came to the Home without previous institution experience. It is most unfortunate that this Home, for which the Legislature provides so generously, falls below the general

standard of Indiana's State institutions. It is to be regretted also that the management does not make greater effort to place its wards in foster homes. We are thoroughly convinced that it would be better for the children if they could receive the advantages of natural home life and the individual care and training so essential to a child's proper development. We believe that it is with this in view that the Legislature makes provision for the employment of a visiting agent for the Home. This agent does some placing but could well do more and we feel that the management should make a determined effort to place their homeless wards long before it becomes necessary under the law to throw them on their own resources. Under the new law admitting grandchildren of veterans the population of the Home is increasing. The average attendance last year was 305, this year 331.

School for the Blind, Indianapolis.—The efficiency of this school has been greatly increased in recent years by the addition of a dormitory on either side of the central building, one for boys, the other for girls. The space formerly occupied as sleeping quarters has been rearranged and utilized to good advantage for the school's activities. There is but little change from year to year in the number of pupils. In the past twenty years the highest average attendance was reached in 1894, 134.7, and the lowest the following year, 111.8. In 1911 it was 127.2. The superintendent states that the blindness of more than half of these children is due to causes which might have been prevented. The school has a regular staff of fifteen instructors, six in the literary department, four each in music and industries and one in physical culture. The course of study of the public schools is followed as closely as possible. The institution is in good physical condition and the welfare of the children is carefully guarded. Mr. John F. Hennessey's death in December, 1910, meant a great loss to the school. He had been a member of its board of trustees since 1893, serving through the administration of four Governors, and had been reappointed by Governor Marshall for the term ending January 1, 1914. He took a vital and active interest in all its affairs.

State School for the Deaf, Indianapolis.—In anticipation of moving to the new location no effort has been made to keep the present buildings in repair. The training of the pupils has followed the usual lines and good work is being done. There is both enthusiasm and patience on the part of the teachers and application on the part of most of the pupils. We are informed that more

than 50 per cent. of the pupils are able to take the oral instruction. The others are taught the manual alphabet. The school needs a better library. The present equipment is of the old style and with the exception of some books for the primary department, few additions have been made for years. In the report of the investigation by the State Charities Aid Association, previously mentioned, this institution is complimented upon its fiscal system, particularly in the handling of subsistence supplies. The school will be moved to the new location early in October, 1911.

Tuberculosis Hospital, Rockville.—The hospital was opened April 1, 1911. Its capacity is 100. Since its opening it has received 166 patients, 96 of whom were present at the close of the fiscal year. Under the appropriation act of 1911 the hospital is entitled to \$5,000 for the erection and equipment of tent houses for 50 patients when the population exceeds 100. The site is a very good one for an institution of this kind and the buildings make a pleasing appearance. We are particularly impressed with the plan and construction of the wings used as quarters for the patients. In some other parts of the institution there are objectionable features, some of which can be overcome. On January 11, 1911, Dr. H. B. Leavitt, of Worthington, was appointed superintendent. It is understood that he had no institutional training. Dr. William Gekler, who has had experience in a tuberculosis hospital, was named as first assistant. Under the law this institution has a board of only three members. It should be changed to conform to the law governing the other institutions, each of which has four trustees.

School for Feeble-Minded Youth, Fort Wayne.—The usual minor repairs have been kept up and in this and other respects the institution is in very good condition. It is well organized and the management thoroughly systematic. The principal addition this year is the new cottage for women. In plan and construction it is a very satisfactory building. It is divided into four units and is connected by corridors through an intermediate kitchen with Harper Lodge. Special arrangements for laundry work have been made in this cottage in order to give the women opportunity for useful service. The State can not invest money to better purpose than in providing custodial care for this unfortunate class.

Village for Epileptics, New Castle.—Considerable work has been done at the Village this year. There has been much grading, fencing and tiling. Fruit trees have been planted, including a very

nice cherry orchard. Practically all the patients are employed. It is gratifying to observe as one of the most valued and trusted residents of the Village a man, who, merely because of his affliction, was confined for eight years in the Madison County jail. The spirit of the institution is very good. The superintendent and his associates appear devoted to their work. The new cottages are well planned and in general the construction is good, the exception being the cement floors. The delay caused by their having to be taken up made it impossible to open the cottages on the date planned. We feel that more money has been spent in this construction than was absolutely necessary. Some of the colonies in Massachusetts which we visited recently have frame buildings and they appear to us as comfortable and more home-like than our cottages and at the same time they cost less to build. The superintendent is doing well. We heartily approve his care and treatment of the patients.

State Prison, Michigan City.—After the death of James D. Reid, in September, 1910, the prison was in charge of its efficient deputy warden, W. A. Garner, until January 1, 1911, when Edward J. Fogarty, former mayor of South Bend, was elected warden. Mr. Garner has since accepted a position in the Connecticut State Prison, Indiana thereby losing the benefit of his long training in prison work. His office here was filled by the appointment of Dr. J. W. Milligan, who served the prison faithfully for a number of years as its physician. We question the propriety, if not the legality, of the agreement entered into between the board of trustees and Mr. Fogarty by which the latter was forbidden to remove any person then employed in the prison without the approval of the trustees. When last visited, in July, practically every part of the institution was inspected. Outside of the binder twine plant, which was not then running, it was a busy, bustling place. There was a large amount of binder twine on hand. The prison construction force had been employed for some time upon the new hospital for insane criminals. This building will be completed early in the winter. The original law (1909) provides that the physician in charge of this hospital shall have had at least three years' practical experience in the care of the insane, but this restriction was removed, most unwisely we feel, by the Legislature of 1911. However, the warden chose an experienced man for this important position. His department is in good condition. There are 200 prisoners who have been declared insane or are under observa-

tion. There are also 200 men serving life sentences. Two hundred men are employed on the stone cutting contract, 300 in the rattan and chair factories and 100 on the leather goods contract. A majority of the men who work on these contracts earn some money each month on their own time. The contractors have absolutely no control of the discipline. The new cell house is in fine condition. The cells are roomy, well equipped and very comfortable. In general the work of the prison is moving smoothly. The officers in charge make a favorable impression.

Indiana Reformatory, Jeffersonville.—It is not possible without entering into tedious detail, to mention all the recent improvements at the Reformatory. The management deserves much credit for what has been done this year to put the institution in better physical condition and to protect the property against fire. We are especially pleased with the bath house, remodeled by the inmates. The arrangement is the best we have seen in any of our institutions. The Reformatory is crowded and its work is hampered. Several of the inmates are insane and there is no special provision for them. It is hoped that they can soon be removed to the hospital at the State Prison. The manufacture of shirts has been discontinued. A number of the men are idle. Putting the State use law into operation is a difficult problem and one which can be solved only by much study and care. The market has been created by the Legislature, but it remains for the Reformatory to make goods of such quality and at such prices as to secure and hold the confidence of those who buy them. The industries here must be regarded as trade schools and the financial returns of less importance than the training of the inmates in a useful trade. We are impressed with the superintendent's spirit and evident desire to do the right thing. There is marked need of better discipline and of greater attention to the details of the management. Conditions exist which though not very serious are not up to the standard which we expect of a public institution.

Indiana Woman's Prison, Indianapolis.—The buildings of this institution are old but in good repair and well kept. The principal improvement of the past year is a much needed fire escape. The south dormitory on the third floor has been converted into single rooms and each woman in the institution has her separate apartment. All of the regular work about the place and much of the repair work, especially the painting, is done by the inmates. They are also given training in cooking, sewing, laundry work and

gardening. They have considerable outdoor life and are as a rule in excellent health. Many of them are received in bad physical condition. We are glad to note that the number of counties making use of the correctional department is increasing, but we think that the value of this substitute for the county jail should be more generally recognized. The superintendent keeps in close touch with those under her charge and apparently has the cordial support of all her associates. The institution is doing good work.

Indiana Girls' School, Clermont.—There is no institution in the State more difficult to manage than the Girls' School. It is unfortunate, therefore, that the State lost this year the services of Miss Charlotte Dye, whose training and experience made her a valuable worker. There was a notable improvement in the school under her administration. She resigned her position July 20, 1911, and left soon after to take charge of the State Industrial Home for Girls, at Delaware, Ohio. There have been several changes in the force of officers and the work of the school has been considerably disturbed. Just prior to the close of the fiscal year Dr. Kenosha Sessions, formerly physician in charge of the Woman's Department of the Southern Hospital for Insane, was chosen to succeed Miss Dye. Those of us who know Dr. Sessions' conscientious work at Evansville feel hopeful of her success in this new position. The school has two visiting agents. They are constantly engaged in placing and visiting the wards of the institution, 300 girls being under supervision at the close of the fiscal year. The agents report that 240 of these are doing well. Several older girls who have been giving considerable trouble were transferred in the spring to other institutions. Only a few of those who are now in the school came from the old building in the city four years ago. On the whole the school has made remarkable progress in its new location. The results show the wisdom of the State in establishing it on the cottage plan.

Indiana Boys' School, Plainfield.—For years the appropriations for the upkeep of this institution have been inadequate. Years ago it was the boast of the school that its running expenses were less than those of any other State institution. This was accomplished only by neglecting the property, and such a policy should never have been permitted. While recent years have witnessed great improvement, much remains to be done to bring the buildings and the work of the school to a proper standard. The principal addition to the equipment this year is the new chapel. The trus-

tees reconsidered their decision to allow the appropriation to revert and completed the new structure, save for some necessary equipment, within the amount set aside for the purpose. The building has a very pleasing appearance and, with its capacity of 1,000, will meet all the needs for many years to come. No labor of the boys was used in its construction. The boilers now in use are very unsatisfactory and it will soon be necessary to replace them. A new 20,000-gallon water tower was erected this summer and a new mangle installed in the laundry. The boys are receiving good training in industrial lines and their school work is progressing in the right direction. We have been gratified in recent years in noting the steady decrease in the number of punishments inflicted. Most of these are demerits and deprivations, but occasionally a boy is spanked with a leather paddle. We wish that corporal punishment could be dispensed with. At the close of the year there were 1,094 boys on parole. The institution's records indicate that 70 per cent. were doing well. Two parole agents look after this department. On January 27, 1911, the board of trustees selected Mr. Guy C. Hanna, a member of the faculty of the State Normal School, at Terre Haute, to succeed Mr. E. E. York, who tendered his resignation as superintendent to take effect April 10, 1911. We believe that Mr. York is entitled to much credit for what he accomplished during the ten years of his superintendency. He served the State faithfully, but was seriously handicapped in many ways. We are favorably impressed with Mr. Hanna's interest in his new work and the progress of the school in the first few months of his administration.

If the county charities were in as good condition as are those of the State, it would be gratifying indeed. Unfortunately the people of Indiana do not demand in their local institutions the high standard which they insist shall be maintained in those of the State. When one glances at the list of counties and marks the new building here, the improvement in equipment and administration there; when he recalls the changes brought about by recent reform legislation, particularly the law which gave us county boards of charities and correction, he is impressed with the thought that great advance has been made. And that in fact is true. No one realizes it so well as the Board of State Charities, which for twenty years has labored incessantly for better conditions. There are many poor asylums in Indiana in which the inmates have kindly care, cheery, comfortable rooms and good, wholesome food. There

are jails which are clean and sanitary and meet all the requirements of the law in so far as the safe-keeping of their inmates is concerned. At the same time there are jails and poor asylums in Indiana which are incredibly bad. There are buildings which are past repair and which in some cases have been so for years. Some institutions are in the hands of inexperienced persons, chosen not because of fitness for the work but to reward some party service or to make a record for economy. In some county poor asylums feeble old men and women suffer for the lack of the most ordinary conveniences. In county jails the health, morals, sometimes even the life of prisoners are endangered. We have pointed out these bad conditions repeatedly, and our labor has not been without reward, but much remains to be done. The remedy for the sorry conditions to be found in so many poor asylums lies in the elimination of party politics from their management, in the exercise of a broader wisdom in providing for their maintenance and administration, and in a public conscience keenly alive to its responsibilities. This is equally true of the county jails, with the added need of legislation which will make possible two things: the abolition of the fee system of receiving, discharging and boarding prisoners and, of greater importance, the use of the jails as places of detention only. The experience of other States in establishing workhouses for short-term offenders leads us to believe that such an institution would be a valuable addition to Indiana's penal and correctional system.

The board's work for dependent and neglected children has been continued along the same general lines as hertofore. More and more, however, we realize the disadvantages of the present system of numerous small orphanages and the need for a central institution. The method now followed involves an annual expenditure of more than two hundred thousand dollars of public money, without accomplishing all that we are convinced can be done for the children with that great sum. Our supervision of maternity hospitals and private homes and agencies for the care of children is showing good results. From time to time we have been instrumental in preventing the establishment of additional and unnecessary charities of this character. Under the competent direction of W. S. Reynolds, State agent, and Miss S. Ethel Clark, inspector, these two departments are proving valuable aids to the State's oversight of its minor wards.

On May 11, 1911, the Chicago Industrial Home, located at Glen Ellyn, Illinois, having complied with the law concerning the im-

portation of dependent children, was granted the right to place its wards in homes in Indiana. The bonds of the Cincinnati Children's Home and of the New York Catholic Home Bureau, respectively, have been renewed.

The board was represented at the National Conference of Charities and Correction at Boston by four members (Dr. Mary A. Spink, Mrs. Emma Lee Elam, the Reverend Francis H. Gavisk and Demarchus C. Brown), the secretary and the State agent. Father Gavisk, as chairman of the Committee on State Supervision, presided over one of the sessions and presented a report. The conference was the largest ever held. There was a representative attendance from Indiana, including not only the State institutions and boards but also many local and private charities. What is being done in this State received frequent mention. The next session will be held at Cleveland, Ohio. Judge Julian W. Mack, of Washington, D. C., will preside. On the executive committee are Timothy Nicholson, a former member of the board, Alexander Johnson and Ernest P. Bicknell, the first and second secretaries, and Amos W. Butler, the present secretary. W. S. Reynolds, State agent of the board, was chosen assistant secretary. Following the meeting, we improved the opportunity to visit some of the institutions in and near Boston. Through the courtesy of the State officials we were able to learn much concerning their system of colony care of defectives and the State farm plan of caring for short-term prisoners.

While we have made notable progress in recent years in the development of our public charities, much still needs to be done. This reaches out into all lines of philanthropic endeavor, and we should continue faithful in our efforts to deal with the problems presented, not only in the way of helping those who need help but also in ascertaining the causes which underlie so much of public dependence and in seeking in whatever way we can to remove those causes. There are, however, certain needs that stand out more prominently than others. Perhaps the greatest, from the standpoint of this board, are: State care of all the insane; a State orphanage to receive all dependent and neglected children who are public wards; additional provision for fighting consumption; a solution of the county jail question by using the jails for detention purposes only and establishing workhouses for short-term prisoners; the elimination of party politics from the management and control of the county institutions.

Under appropriate headings, on subsequent pages, the several lines of work carried on by the board are treated more fully. Attention is directed to these, to the board's recommendations to the Legislature, and to the reports of the secretary, the State agent and the inspector.

STATISTICS OF PRINCIPAL PUBLIC CHARITIES, 1890-1911.

EXPENDITURES.

YEAR.	STATE INSTITUTIONS.		POOR ASYLUMS.		ORPHANS' HOMES.		Official Outdoor Poor Relief.
	Mainten- tenance.	New Buildings and Extra- ordinary Repairs.	Mainten- tenance.	Land and New Buildings.	Mainten- tenance.	Land and New Buildings.	
1890	\$856,379 58	\$381,439 67	\$243,518 34		\$101,541 99		\$560,232 65
1891	1,104,068 24	155,716 20	243,972 76		107,231 61		560,012 35
1892	1,073,768 12	100,623 35					581,338 00
1893	1,086,733 31	62,832 91	250,847 50		113,776 39		511,503 35
1894	1,120,289 79	36,216 49	257,581 44		136,245 28		586,232 27
1895	1,151,741 35	76,712 90	254,832 48		139,822 35		630,168 79
1896	1,060,626 92	106,299 27	281,380 33		122,699 21		355,255 29
1897	1,079,903 24	120,649 94					388,343 67
1898	1,168,374 81	63,865 51					288,349 62
1899	1,213,213 56	144,879 52					320,667 53
1900	1,290,790 33	357,665 49	325,496 50				209,956 22
1901	1,379,859 87	260,386 05	349,947 67	\$29,749 36	179,114 21	\$5,386 74	236,723 98
1902	1,382,397 19	270,851 52	388,360 94	31,403 51	165,413 61	602 66	266,876 96
1903	1,425,752 69	154,449 57	379,679 29	60,016 49	169,943 56	23,277 83	245,745 82
1904	1,525,740 77	223,940 51	387,813 86	22,001 11	171,319 36	8,127 04	281,899 87
1905	1,555,787 17	117,970 18	407,141 23	76,969 30	191,488 02	1,000 00	249,884 68
1906	1,620,454 48	294,838 47	426,788 51	122,249 90	187,387 01	28,207 43	233,612 70
1907	1,540,984 53	232,778 53	446,431 28	148,624 42	196,239 31	11,232 03	227,304 71
1908	1,800,469 96	591,751 49	466,865 52	82,938 25	207,077 02	11,178 22	292,496 19
1909	1,932,381 33	181,730 38	455,333 60	23,147 11	202,690 43	6,176 42	279,967 31
1910	1,991,005 27	396,961 96	464,551 88	107,820 51	200,128 76		266,181 16
1911	2,109,833 44	274,845 00					

POPULATION.

YEAR.	Enroll- ment of State In- stitutions.	Number Present in Poor Asylums.	Number Present in Orphans' Homes.	Number Present in Jails.	Number Aided by Trustees.
1890	5,406	3,264			
1891	6,294	3,253	1,015	600	
1892	6,268				
1893	6,413	3,459			
1894	6,905	3,731	1,289		
1895	7,096		1,300		
1896	7,264	2,976	1,395		71,414
1897	7,953	3,072	1,401		82,235
1898	8,224	3,102	1,596		75,119
1899	8,471	3,133	1,605	771	64,468
1900	8,839	3,096	1,626	709	46,369
1901	9,056	3,091	1,690	686	52,801
1902	9,229	3,046	1,565	801	48,849
1903	9,650	2,962	1,527	849	40,012
1904	9,909	3,144	1,591	949	46,009
1905	10,315	3,115	1,699	889	45,331
1906	10,417	3,124	1,747	1,062	38,612
1907	10,587	3,165	1,582	1,326	37,724
1908	11,120	3,278	1,633	1,275	56,200
1909	11,600	3,233	1,591	1,129	54,518
1910	11,511	3,110	1,570	1,075	43,227
1911	11,801	3,009	1,560	1,255	

RECOMMENDATIONS TO THE LEGISLATURE.

PROVISION FOR THE INSANE.

There is constantly before us the problem of the care of the insane. In order properly to treat these unfortunates the State hospitals should be prepared to receive them without delay. This has not been possible for years because of their overcrowded condition. It is evident that a more elastic system is essential. The colony plan, which contemplates the purchase of a farm a little distance removed from the hospital, yet near enough to be under its supervision and care, offers a feasible plan for providing additional room. To such a colony a number of patients whose insanity is of a mild, harmless nature could be removed and the beds they now occupy left for those needing hospital treatment. Other States have tried this plan and found it very satisfactory. We recommend that it be tried at one or more of our existing hospitals where the opportunity seems best. A receiving hospital would be a valuable aid to the Central Hospital at Indianapolis. The coming Legislature should take steps looking to additional provision for the insane.

COUNTY JAILS.

The fee system in the administration of county jails is a serious abuse. This should be abolished and the jails maintained on the same basis as the county poor asylums.

DISTRICT WORKHOUSES.

Most of the prisoners who are convicted and sentenced to jail are charged with violating the State laws. It is hard to understand why the State should not have charge of them. In most of our jails the prisoners are not separated or classified, and they lead idle and frequently immoral lives. Why should not the State establish one or more workhouses as the need seems to arise, under State control, conducted on the merit system? These could be located upon diversified land so as to afford as great a variety of employment as possible. The experience of some of our sister States should encourage us as to the probable success of such a venture. To these workhouses could be sent all convicted prisoners

who now go to the county jails, except the sentence be an exceedingly short one. There they would be under good discipline and proper training, and would have regular employment. The prisoners could be more cheaply maintained, and, inasmuch as such institutions would be conducted in accordance with the best reformatory methods, better results should be secured.

STATE PUBLIC SCHOOL FOR DEPENDENT CHILDREN.

While we have made important progress in the question of dealing with minor public wards, yet at the same time there are grave objections to the present scattered system of caring for dependent children. The Board of Children's Guardians law provides for wayward and neglected children, and the counties which have erected homes under this law can give the proper care to this class; but the dependent children problem can be dealt with by one central institution, acting as a receiving home, more effectually than is possible with the present system. In many of our small orphanages the children do not receive the training necessary to fit them for useful lives, and they are unacceptable in good family homes; whereas a central institution, managed and maintained by the State, would be equipped to prepare them in the very best possible way for family life. There are many sick and crippled and otherwise defective children which cannot be placed in family homes. Many of these could be readily cured if the right provision was made for their care and treatment. The central system has been given a thorough test in Michigan, Minnesota and Wisconsin, and the results have proved it not only better for the children but less expensive for the State.

JUDGES' VISITS TO CORRECTIONAL INSTITUTIONS.

Under our new system of criminal laws the various reformatory and penal institutions of the State are really a part of the judicial system. Our judges as a rule do not understand them or their work. It would be wise if provision could be made requiring each judge of a circuit or criminal court from time to time to visit each of these institutions, and providing for the payment of his actual traveling expenses. Such a step would be valuable in the administration of the law and helpful to the institutions.

THE CORRECTIONAL DEPARTMENT OF THE WOMAN'S PRISON.

The law of 1907 creating the correctional department of the Woman's Prison, provides that all women convicted of violation of the law, the punishment for which theretofore consisted of confinement in the county jail or workhouse, shall be sentenced to the State institution. However, when the imprisonment adjudged is ninety days or less, or when the fine and costs assessed would not require a woman to serve more than thirty days, it is left to the discretion of the judge to send her either to the State institution or to the county jail or workhouse. This proviso will doubtless leave a great many women in the county jails. In the majority of such institutions there is a lack of proper sex separation; the women prisoners must depend upon the care of men; there are no arrangements for their employment; scandals frequently develop because of their presence there. It seems wise, therefore, to make such change in the law as will remove all convicted women from the county institutions. The correctional department of the Woman's Prison should be enlarged in order to receive them.

UNPAID BOARDS OF TRUSTEES.

The Board of State Charities from its beginning has favored unpaid boards of trustees for our State institutions. After an experience of twenty years, during a part of which time most of our boards have served without compensation, we are more than ever impressed with the belief in unpaid boards of trustees. We believe that they render the best service, and in all respects are more satisfactory. Many persons will accept such positions as an honor. The service they render will be as faithful as if paid for. The small compensation allowed is not an attraction to those who would be glad to render service for its own sake. It is attractive, however, to many who will accept such positions for the small salaries paid. We feel it would be better for the institutions and for the State if the boards were composed of members who were paid only their actual expenses.

THE ADULT BLIND.

In public institutions and elsewhere in Indiana there are adult blind persons who are able-bodied but unable to earn their living because of a lack of proper facilities. We recommend the appointment of a commission to investigate the condition and needs of this class.

DEPORTATION OF NONRESIDENTS.

Several States of the Union have tried, with thoroughly satisfactory results, the experiment of deporting at their own expense all nonresidents who become public charges. They have found that the expense entailed is far less than would have to be borne were such persons given permanent asylum in their institutions. There are many persons in Indiana institutions who have no legal claim upon our charity but who will need care as long as they live. We could return them to the place of their legal settlement at far less cost than to maintain them for even a few years. We recommend the passage of a law looking to that end.

BURGLARY AND PETIT LARCENY.

Two recent laws prescribe a sentence of one to eight years for petit larceny and of ten to twenty years for burglary. It is the opinion of this board that these penalties are too severe. We believe that the interests of the State will be as well, if not better, served by so amending these laws as to guard against the reaction which is practically certain to follow too severe punishment.

VILLAGE FOR EPILEPTICS.

We believe that the growth of the Indiana Village for Epileptics should be natural and slow and that the Legislature should provide for its development in that way. It should carry out the village idea, with plain, substantial and inexpensive buildings. Its policy should be to do the greatest good to the greatest number, and for this reason it should receive first the most hopeful cases, including children.

SUPERVISION OF THE STATE'S WARDS.

Nothing pays so well, whether measured by the good accomplished or by the value received for money expended, as thorough supervision of the wards of the State who have gone out from its several institutions. Representatives of the orphans' homes and agents appointed by the Board of State Charities are charged with the duty of looking after dependent children in foster homes. Special agents of the Indiana Reformatory and the State Prison supervise paroled men. The Soldiers' and Sailors' Orphans' Home has an agent who does some placing and should do more. Placing agents are employed by the Indiana Boys' School and the Indiana Girls' School. Additional ones are needed. All these agencies should be brought to their highest efficiency to the end that good homes may be found and that thorough supervision of all the State's wards may be had.

THE STATE INSTITUTIONS.

The Legislature of 1909 set aside \$1,666,445 from the general fund for the current expenses of the State benevolent and correctional institutions for each year of the next biennial period, 1910 and 1911. To this sum there was added in 1911 a total of \$506,779.90 which became available from various sources—statutory provisions, per capita allowances, the Governor's contingent fund, excess pension fund of the Soldiers' Home and two or three small additional appropriations by the General Assembly of 1911. The gross amount available for current expenses this year was, therefore, \$2,173,224.90. From this fund the institutions spent \$2,109,833.44.

The expenditures for new buildings and permanent improvements during the year amounted to \$274,845. The principal items entering into this sum were, at the Southern Hospital for the Insane, \$75,393.99 for land, dairy and a new hospital; at the School for Feeble-Minded Youth, \$40,711.46 for the new cottage for women inmates; at the Epileptic Village, \$79,350.34 toward the completion of the four new cottages and necessary improvements to the grounds; at the State Prison, \$26,854.67 on the new cell-house; at the Boys' School, \$18,588.72 for new chapel and other improvements.

The grand total of current and extraordinary expenses for the year was \$2,384,678.44. This was \$3,288.79 less than the total expenditures the preceding year. An analysis of the figures indicates that the saving occurred in the cost of permanent improvements. In 1910 the State spent \$396,961.96 for this purpose, in 1911, \$274,845.00, or \$122,116.96 less. On the other hand because of the addition of the Southeastern Hospital for the Insane to the number of institutions, the regular maintenance expenses (which include administration, subsistence, clothing, office, domestic and outdoor departments and ordinary repairs) were greater this year by \$118,828.17. The Southeastern Hospital for Insane was opened late in 1910 and only a little over \$8,000 was spent for its maintenance that year. In 1911 its maintenance cost the State \$131,855.15. In nine other institutions the current expenses were greater this year than last, ranging from \$369.04 at the State Prison to \$4,042 at the Southern Hospital for Insane. On the contrary, the mainte-

nance expenses were less at the Central Hospital, the Soldiers' Home, the School for the Blind, the Reformatory, the Girls' School and the Boys' School.

Summing up, there was an aggregate increase of \$149,666.07 in the current expenses of ten institutions, including the new hospital, and a decrease of \$30,837.90 in six; net increase \$118,828.17. In passing, it may be noted that several of the institutions report an increase of nearly 20 per cent. in this year's expenditures for fuel and light.

The gross expenditures of the institutions, classified, make the following showing, both in the aggregate and per capita of inmates:

	Per Capita.	Aggregate.
Salaries and wages.....	\$71 65	\$766,612 56
Subsistence	53 48	572,257 41
Clothing	8 37	89,624 46
Office, domestic and outdoor departments.....	54 38	581,858 94
Repairs	9 30	99,480 07
	<hr/>	<hr/>
	\$197 18	\$2,109,833 44
New buildings and furnishings.....		233,434 49
Permanent improvements		41,410 51
		<hr/>
Grand total		\$2,384,678 44

The institutions turned over to the State treasury earnings amounting to \$254,572.85, the bulk of which came from the labor of convicts at the State Prison and Reformatory. This sum reduces the gross expense to \$2,130,105.59.

The institutions under consideration closed the year with a population of 10,904; 6,493 men and boys and 4,411 women and girls.

The greater proportion of these wards of the State were afflicted with insanity or epilepsy or were feeble-minded: 5,968, or 55 per cent. of the whole number. In this class there were 3,054 women and 2,914 men. The second largest class of State institution inmates, constituting 29 per cent. of the whole number, was made up of the delinquents. In the two prisons, the reformatory and the two reform schools, on September 30, 1911, there were 3,197 inmates: 2,170 men, 602 boys, 126 women and 299 girls. In these five institutions the males exceeded the females by 2,347, or 84.6 per cent. The Soldiers' Home and the Soldiers' and Sailors' Orphans' Home at the close of the year were caring for 1,343 inmates, or 12 per cent. of all the State's wards, and the schools for the blind and the deaf had 396 pupils, or 4 per cent. At the Soldiers'

Home there were 384 men and 562 women; at the Soldiers' and Sailors' Orphans' Home 229 boys and 168 girls; at the Schools for the Deaf and Blind the boys numbered 194 and the girls 202.

In addition to the 10,904 persons actually in the institutions on September 30, there were 897 others enrolled but temporarily absent, making the total number enrolled 11,801. In proportion to the population of the State this is equal to one in every group of 228 inhabitants or 44 in every 10,000.

The figures indicating the average daily attendance give one a better idea of the number cared for in these institutions than can be obtained from a statement of the population on any one day. In the five hospitals for the insane for the year ending September 30, 1911, the average daily attendance was 4,544.92, greater by 238.36 than last year. This increase is due chiefly to the opening of the new Southeastern Hospital at Madison. Since it began receiving patients 573 have been transferred to it from the Central and Eastern hospitals, and 302 have been committed by the courts. At the Soldiers' Home this year the average attendance was 898, or 27.5 less than in 1910. Because of the new law admitting the grandchildren of veterans to the Soldiers' and Sailors' Orphans' Home, the population statistics of that institution for the first time in ten years show an upward tendency. From an average of 305 last year, the attendance increased this year to 331. The average attendance at the School for Feeble-Minded Youth, 1,147.92, was 24.54 greater than last year, while the attendance at the Village for Epileptics, 116.08, at the School for the Deaf, 296.73, and at the School for the Blind, 127.19, was practically the same as for the preceding year. This is true also of the average attendance of 58.09 at the Woman's Prison. In the correctional department of that institution, however, there is to be noted an increase: 53.15 last year, 60.9 this year. The records of the other four penal and correctional institutions show a decrease from last year: 35.42 at the State Prison, 14.68 at the Reformatory, 9.89 at the Girls' School, 41.66 at the Boys' School. In 1911 the State Prison had an average population of 1,077.5, the Reformatory 1,091.55, the Girls' School 309.76, the Boys' School 640.15.

The average number cared for in the charitable and educational institutions was greater in 1911 than in 1910 by 269.15; in penal and correctional institutions less by 93.17. There were more insane, feeble-minded, epileptic, deaf and soldiers' orphans, fewer soldiers, blind and prisoners in the institutions this year than last.

The care of these inmates and the management and necessary work of the institutions required an average force of 1,899 officers and employes last year. The proportion of inmates to each person on salary ranged from 2.36 at the School for the Blind to 15.18 at the State Prison. At the Soldiers' and Sailors' Orphans' Home, the Village for Epileptics and the School for the Deaf, there was an average of a little over three inmates to each person on salary; at the Soldiers' Home and at the five hospitals for the insane, with the exception of the Southern, the average was a little over four. At the Southern Hospital there were 6.17 patients and at the School for Feeble-Minded Youth, 6.67 inmates to each person on salary. In the five correctional institutions the average number of inmates to each employe was 15.18 at the State Prison, 12.74 at the Reformatory, 10.98 at the Boys' School, 5.95 at the Woman's Prison and 5.63 at the Girls' School.

In this connection it must be borne in mind that a certain number of employes is necessary for every institution whether the number of inmates be great or small. Each institution has its trustees, its superintendent and certain administrative officers, regardless of the number of inmates. Seven of them maintain schools, requiring both literary and industrial teachers. The insane must have special personal attendants. All these points must be considered in any comparison of the average of administration.

With the establishment of the Tuberculosis Hospital at Rockville, the State is now maintaining seventeen benevolent and correctional institutions. Up to September 30, 1911, this hospital had received 166 patients and 70 had been discharged or withdrawn, leaving 96 present at the close of the year. Fifty of these were women. The average attendance for the six months was 60. The maintenance expenses for that time amounted to \$24,144.09 and \$11,087.50 was spent for permanent improvements, making the grand total expenses of the institution \$35,231.59. These figures are not included in the total given above.

The remainder of this chapter is devoted to a more detailed statement concerning each of the State institutions. The same subject is treated at greater length in the Indiana Bulletin of Charities and Correction, issued by this board quarterly.

CENTRAL HOSPITAL FOR INSANE, INDIANAPOLIS.

DR. GEORGE F. EDENHARTER, Superintendent.

Real estate, 160 acres. Capacity, 1,605. Beginning the year with an enrollment of 1,527 patients, the hospital received 407 inmates and discharged 360. This left 1,574 enrolled September 30, 1911. Of this number 141 were temporarily absent. The number actually present on that day was, therefore, 1,433; 626 men and 807 women. The daily average attendance for the year was 1,423.02. This was a reduction of 365.65 from the preceding year and was brought about by the transfer of 476 patients to the new Southeastern Hospital for the Insane at the close of the year 1910.

The average number of employes for the year was 341.85—2.29 fewer than for the preceding year. The number of patients averaged 4.16 to each person on salary.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$325,000 00	\$310,903 09	\$14,096 91
Repairs	25,000 00	23,457 97	1,542 03
Clothing	15,000 00	13,583 20	1,416 80
Total	\$365,000 00	\$347,944 26	\$17,055 74
New Buildings and Extraordinary Repairs—			
Upholsterer's department....	\$3,500 00	\$3,493 03	\$6 97
Grand total	\$368,500 00	\$351,437 29	\$17,062 71

As shown above, the regular operating expenses of the hospital for the year amounted to \$347,944.26, a decrease of \$10,217.17 from the preceding year. The administrative expenses were less by \$2,071.71, subsistence \$18,414.11 and clothing \$1,245.46. On the other hand there was an increase of \$7,905.14 in the office, domestic and outdoor departments (the fuel bill alone was \$7,583.04 greater than in 1910) and \$3,608.97 in ordinary repairs.

The effect of a reduction of nearly 21 per cent. in the average population without an equal decrease in the expenditures (which of course could not be expected) is shown in the analysis of expenditures per capita of inmates. The gross maintenance in 1910 amounted to \$200.23, in 1911 to \$244.51, or \$44.28 more. The largest single item entering into this increase is the greater cost of fuel. The per capita expense of administration is also greater—\$71.43 in 1910, \$88.33 in 1911, a difference of \$16.90. The other

classifications of the maintenance expenditures show the following increases per capita: subsistence \$4.84, clothing 91 cents, office, domestic and outdoor departments \$15.70, repairs \$5.93.

The value of the products grown in the institution gardens and used during the year is estimated at \$5,795.17, or \$4.77 per capita, and the cost of its production at \$2,157.72. Last year the value of the garden products was estimated at \$5,817.24, or \$3.25 per capita.

NORTHERN HOSPITAL FOR INSANE, LOGANSPORT.

DR. F. W. TERFLINGER, Superintendent.

Real estate, 280.35 acres. Capacity, 950. At the beginning of the year 1,105 patients were enrolled. During the twelve months just closed the hospital received 214 patients and discharged 259, 88 of the latter number being transferred to the Eastern Hospital for the Insane. On September 30, 1911, there were 1,060 patients enrolled. This number included 124 absent on furlough. The actual population, therefore, was 493 men and 443 women, total 936. An average of 977.65 patients was present each day of the year, a decrease of 8.5 from the preceding year. The number of employes averaged 203.36 in 1911, an increase of 5.73 over 1910. The average number of patients cared for was equal to 4.81 to each person on salary.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$162,000 00	\$162,000 00
Additional maintenance (ex-			
cess population)	13,976 61	13,323 13	\$653 48
Clothing	6,500 00	6,499 69	31
Repairs	9,000 00	8,999 59	41
Total	\$191,476 61	\$190,822 41	\$654 20
New Buildings and Extraordinary			.
Repairs—			
Closet annexes (balance)....	\$2,222 97	\$1,206 17	\$1,016 80
Laboratory, mortuary and			
dispensary (balance) ...	6,646 66	6,644 20	2 46
Cold store (balance)	4,591 37	4,580 08	11 29
Total	\$13,461 00	\$12,430 45	\$1,030 55
Grand total	\$204,937 61	\$203,252 86	\$1,684 75

The maintenance cost in 1911 was greater by \$1,357.45 than in 1910. There were increases in three classifications: administration,

\$4,886.36; repairs, \$1,169.68; office, domestic and outdoor departments, \$95.88. These increases were offset by decreases of \$4,378.46 in subsistence and \$416.01 in the cost of clothing.

In addition to the hospital's regular maintenance appropriation of \$162,000, which was based on an average attendance of 900, there became available \$13,976.61 for the population in excess of that number. All of the regular appropriation and nearly all of the additional allowance was used. As shown above, there were small balances in the other regular appropriations. The hospital spent \$12,430.45 in completing some important additions and repairs provided for by the Legislature of 1909, making the institution's gross expenditures \$207,249.14.

The per capita cost, based on the regular operating expenses and the average daily attendance, was \$195.18 for the year, \$3.06 more than in 1910. While there was a decrease of \$4.00 per capita in subsistence and 38 cents in clothing, the administrative expenses per capita were greater by \$5.64, repairs \$1.25 and office, domestic and outdoor departments 55 cents.

There were raised and used during the year farm and garden products estimated to be worth \$19,630.63, or \$20.08 per capita. This was \$2,215.82, or \$2.42 per capita greater than for the preceding year. The cost of producing this year's crop was estimated at \$12,257.50.

EASTERN HOSPITAL FOR INSANE, RICHMOND.

DR. S. E. SMITH, Superintendent.

Real estate, 323.04 acres. Capacity, 831. There is but little change in the population statistics of the Eastern Hospital from those of a year ago. Two hundred and forty-seven patients were received (88 by transfer from the Northern Hospital) and 206 were discharged or withdrawn. The net gain in enrollment from 786 on October 1, 1910, to 827 on September 30, 1911, was 41. On the latter date there were present 395 men and 419 women patients. The daily average attendance for the year, 793.88, was but 1.16 less than for the preceding twelve months.

The hospital had practically the same average number of officers and employes as last year—167.1 in 1911 and 165.6 in 1910. The average of administration was 4.75 patients to each person on salary.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$135,000 00	\$135,000 00
Additional maintenance (ex- cess population)	7,902 01	6,525 78	\$1,376 23
Repairs	7,500 00	7,419 96	80 04
Clothing	6,000 00	5,991 38	8 62
Total	\$156,402 01	\$154,937 12	\$1,464 89
New Buildings and Extraordinary Repairs—			
Mechanical equipment (bal- ance)	\$1,633 68	\$1,619 29	\$14 39
Grand total	\$158,035 69	\$156,556 41	\$1,479 28

The hospital was maintained on practically the same amount of money in 1911 as in the preceding year. In the cost of administration, subsistence and clothing there was a slight increase; in the office, domestic and outdoor departments and in ordinary repairs there were decreases. On the whole, there was an increase of \$3,515.95. This increase, combined with a slightly lower average attendance, resulted in a higher per capita cost—\$190.45 in 1910 and \$195.16 in 1911. The chief cause of the increase is found in the greater expenditure for clothing, \$4.80 per patient last year, \$7.55 this year.

The balance of the appropriation for mechanical equipment was spent this year, bringing the total expenditure for this improvement to \$13,985.61, or within \$14.39 of the amount set aside for it by the Legislature of 1909.

The value of farm and garden products grown and used during the year is estimated at \$14,549.63, or \$18.33 per capita. This is less by \$828.10, or \$1.01 per capita than the figures for 1910. The cost of the 1911 products is estimated at \$8,002.43.

There is a striking similarity in the statistics relating to the Eastern and the Northern Hospitals for the Insane. The gross maintenance cost per patient at the Eastern this year was \$195.16, at the Northern \$195.18. They have practically the same number of officers and employes in proportion to population—one to every 4.75 patients at the Eastern Hospital and one to every 4.81 at the Northern Hospital.

SOUTHERN HOSPITAL FOR INSANE, EVANSVILLE.

DR. C. E. LAUGHLIN, Superintendent.

Real estate, 240 acres. Capacity, 810. On the first day of the fiscal year 798 patients were enrolled; on the last day, 807. Of the latter number, 46 were absent on furlough on September 30, 1911, and the remaining 761 were in the hospital—412 men and 349 women. The hospital received 162 patients during the year and 153 were discharged or withdrawn. Its daily average attendance, 746.54, was greater by 9.84 than in 1910.

The officers and employes, 121 in number, averaged one to every 6.17 patients, practically the same as last year.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$109,395 00	\$109,395 00
Additional maintenance (excess population)	13,363 97	12,104 65	\$1,259 32
Repairs	6,000 00	5,993 54	6 46
Clothing	4,500 00	4,361 96	138 04
Total	\$133,258 97	\$131,855 15	\$1,403 82
New Buildings and Extraordinary Repairs—			
Land and dairy (balance)...	\$15,705 27	\$15,705 27
Hospital (balance)	59,700 00	59,688 72	\$11 28
Total	\$75,405 27	\$75,393 99	\$11 28
Grand total	\$208,664 24	\$207,249 14	\$1,415 10

The hospital, as indicated above, used all its maintenance appropriation and in addition \$12,104.65 of the \$13,363.97 which became available for the maintenance of patients in excess of 663, upon which number the regular appropriation was based. The report of the institution indicates increases in administration expenses, in repairs and in the office, domestic and outdoor departments, and decreases in subsistence and clothing. Altogether there was a net increase of \$4,042 over last year's expenses. This was brought about principally by the purchase of additional land and the resultant increased expenditures for farm, garden and dairy. Each patient in the hospital cost an average of \$176.62, or \$3.13 more in 1911 than in 1910. In addition to maintenance the report shows \$59,688.72 spent for the hospital and \$15,705.27 for land and dairy authorized by the General Assembly of 1909.

The value of the farm and garden products grown and used during the year is estimated at \$9,524.13, or \$12.76 per capita. This is less by \$856.70, or \$1.34 per capita than the figures for 1910. The cost of the 1911 products is estimated at \$1,011.75.

SOUTHEASTERN HOSPITAL FOR INSANE, NORTH MADISON.

DR. E. P. BUSSE, Superintendent.

Real estate, 363.79 acres. Capacity, 1,100. Since this hospital was opened, August 23, 1910, it has relieved the Central and Eastern Hospitals of the care of 573 patients and has received 302 by commitment, a total of 875. Five hundred and forty-three of these were enrolled at the beginning of the fiscal year; 269 were received by commitment in 1911 and 62 by transfer, 117 were discharged or withdrawn and on September 30, 1911, the enrollment numbered 757, of whom 46 were absent on furlough. There were actually present 349 men and 362 women, total 711. The daily average attendance for the twelve months was 603.83.

For the care of the patients and the duties incident to the operation of the hospital, 149 persons were employed, an average of one to every 4.05 patients.

The act establishing this institution set aside for its maintenance a sum equal to \$225 per annum for each patient. For 1911 this amounted to \$135,826.19. All but \$207.75 of this sum was spent.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$135,826 19	\$135,618 44	\$207 75
Total	\$135,826 19	\$135,618 44	\$207 75

The per capita cost of maintaining the hospital, based on the above amount and the daily average attendance, was as follows: Administration, \$73.81; subsistence, \$59.70; clothing, \$8.30; office, domestic and outdoor departments, \$77.93; repairs, \$4.86; total, \$224.60. This is forty cents less than the per capita amount to which the Legislature limited the expense. It is worthy of note that the per capita cost of administration, subsistence and clothing, making a total of \$141.81 at the Southeastern Hospital, was practically the same as at the Eastern, where the same classifications of the maintenance cost make a total of \$140.91 per capita.

The estimated value of farm and garden products grown and used during the year is \$7,270.60, or \$12.04 per capita. The cost of their production is estimated at \$3,600.

STATE SOLDIERS' HOME, LAFAYETTE.

COL. D. B. KEHLER, Commandant.

Real estate, 194.03 acres. Capacity, 1,075. At the beginning of the year 1,430 members were enrolled at the Soldiers' Home. Four hundred fifty-four of these were temporarily absent. During the fiscal year 235 persons were received and 255 left the Home. The number actually present on September 30, 1911, was 946—384 men and 562 women, a decrease of 30 from the number present on the corresponding day last year. The year closed with 1,410 members enrolled. The average daily attendance decreased from 925.5 in 1910 to 898 in 1911. The number of civilian officers and employes for the year averaged 73, and 118 members of the Home were also on salary. Last year 56 civilians and 118 members were employed.

All honorably discharged soldiers, sailors and marines, their wives and widows, and army nurses, residents of Indiana, are eligible to admission. For each member, officer and employe the State appropriates \$16 per month for current expenses, and is reimbursed to the extent of \$100 per year allowed by the United States Government for every soldier maintained in a State Home. The law of 1911 allows the Home to retain from the members' pensions all they receive in excess of a certain amount, this amount varying with the different classes of members.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Cash on hand Sept. 30, 1910..	\$4,406 81	\$168,385 99	\$23,455 32
Refund, fuel	108 50		
Excess of pensions from May 4, 1911	2,621 20		
State per capita allowance...	184,704 80		
Salary of Commandant.....	1,200 00	1,180 00	20 00
Salary of adjutant.....	900 00	888 87	11 13
Total	\$193,941 31	\$170,454 86	\$23,486 45

Of the balance shown above, \$2,652.33 reverted to the general fund. The Home returned to the State treasury \$16,000 of the unused per capita allowance and retained \$4,802.99.

While there was a decrease in the membership of the Home, a larger staff of civilian employes was maintained, and the administrative expenses were consequently greater by \$1,972.22. There were also increases of \$2,559 and \$2,221.74 in the sums spent respectively for subsistence and office, domestic and outdoor depart-

ments. For clothing and ordinary repairs the cost was less by \$10,003.17 than in the preceding year. On the whole there was a decrease in maintaining the Home, amounting to \$3,250.21. The per capita cost, however, was increased by \$2.12—\$187.69 in 1910, \$189.81 in 1911.

SOLDIERS' AND SAILORS' ORPHANS' HOME, KNIGHTSTOWN.

P. P. STULTZ, Superintendent.

Real estate, 242 acres. Capacity, 600. The Home entered on the fiscal year with an enrollment of 367. To this number 128 were added and 85 were withdrawn, the year closing with an enrollment of 410. Thirteen children were temporarily absent, and 397 (229 boys and 168 girls) were in the Home September 30, 1911. The average daily attendance shows an increase of 26—305 in 1910 and 331 in 1911, the explanation for which lies in the new law admitting the grandchildren of veterans. The number of administrative officers was 90 in 1910 and 92 in 1911.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$100,000 00	\$94,072 02	\$5,927 98
Repairs	6,000 00	6,000 00
Officers' salaries	3,900 00	3,766 88	133 12
Agent's fund	1,000 00	853 40	146 60
Library	300 00	300 00
Total	\$111,200 00	\$104,992 30	\$6,207 70
New Buildings and Extraordinary Repairs—			
Tiling for farm drainage....	\$215 00	\$215 00
Refurnishing bath room....	255 00	255 00
Water system (Governor's contingent fund)	990 81	990 81
Total	\$1,460 81	\$1,460 81
Grand total	\$112,660 81	\$106,453 11	\$6,207 70

The per capita cost of gross maintenance, based on the operating expenses and the daily average attendance, was \$317.20, a decrease from last year of \$14.40. This is due chiefly to the increase in attendance, for the amount spent in maintaining the Home was only \$3,853.15 greater than in 1910. The cost of heat and light in particular was higher. It is interesting to find that while there

were more children in the Home this year, the money spent for food supplies was reduced in amount from \$28,173.37 to \$26,894.32. The other four classifications of current expenses show increases.

The table shows that the Home closed the year without a deficit in any of its regular funds, but that it received \$990.81 from the Governor's contingent fund to complete its water system.

The value of the produce raised on the institution farm and used during the year is estimated at \$6,025, or \$18.20 per capita, and the cost of producing it at \$3,796, or \$11.47 per capita.

SCHOOL FOR FEEBLE-MINDED YOUTH, FORT WAYNE.

A. E. CARROLL, Superintendent.

Real estate, 563.91 acres. Capacity, 1,147. On September 30, 1910, there was an enrollment of 1,143 at the School. During the fiscal year there were added 144 and 62 were withdrawn, leaving the enrollment at the end of the year 1,225. On September 30, 1911, there were actually present 1,199 inmates—525 males and 674 females. The daily average attendance for the year was 1,147.92, an increase over last year of 24.54. The average number of officers and employes also shows an increase—from 169.5 in 1910 to 172.06 in 1911.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$130,000 00	\$130,000 00
Additional maintenance (ex- cess population)	19,229 45	19,226 90	\$2 55
Repairs and painting.....	7,500 00	7,499 87	13
Total	\$156,729 45	\$156,726 77	\$2 68
New Buildings and Extraordinary Repairs--			
Cottage for adult females (balance)	\$40,713 42	\$40,711 46	\$1 96
Grand total	\$197,442 87	\$197,438 23	\$4 64

The gross maintenance cost was greater than in 1910 by \$3,211.69. The principal increase is to be found in administration and in the cost of fuel and light. The per capita cost remains practically the same as last year—\$136.65 in 1910 and \$136.53 in 1911, the increases in the instance mentioned being offset by reductions in other departments, particularly subsistence.

The estimated value of farm produce raised on the institution

farm and consumed during the year is \$17,260.31, or \$15.04 per capita. The cost of producing it is estimated at \$12,945.23, or \$10.41 per capita. Last year the per capita value of the farm produce used was \$11.80. The increase to \$15.04 this year was met by a corresponding per capita decrease in the amount spent for subsistence.

VILLAGE FOR EPILEPTICS, NEW CASTLE.

DR. W. C. VAN NUYS, Superintendent.

Real estate, 1,245 acres. Capacity, 116. Every bed was taken at the beginning of the year. During the fiscal year there were 7 additions and 7 withdrawals. Of the 114 present when the year ended, 4 were boys under 16 years of age. The Village is not yet able to admit women. The average daily attendance for the year was 116.08, practically the same as in 1910, and the average number of officers and employes 30.12—one to every 3.85 inmates.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$33,197 29	\$33,190 94	\$6 35
Farm and grounds.....	2,970 43	2,970 43
Total	\$36,167 72	\$36,161 37	\$6 35
New Buildings and Extraordinary Repairs—			
Farm and grounds (balance)	\$2,029 57	\$2,014 11	\$15 46
Two cottages for men (balance)	36,858 37	36,668 19	190 18
Two cottages for boys (balance)	30,268 31	30,249 27	19 04
Furnishings for above cottages and sewers.....	7,650 00	1,143 18	6,506 82
Additional for sewers (Governor's contingent fund).	1,010 00	1,010 00
Addition to Colony No. 1....	7,500 00	7,490 59	9 41
Dairy herd (Governor's contingent fund)	775 00	775 00
Total	\$86,091 25	\$79,350 34	\$6,740 91
Grand total	\$122,258 97	\$115,511 71	\$6,747 26

The gross maintenance expenses for the year show an increase of \$1,483.38 over the preceding year, or \$10.65 per capita. The increase in administration was \$2.17 per capita, in office, domestic

and outdoor departments, \$15.56 per capita and in repairs, \$1.82 per capita. There were per capita decreases in subsistence of \$2.40 and in clothing of \$6.50. The expense to the State for each person maintained at the Village this year averaged \$311.52. But for the farm and garden cultivated by the Village residents and the institution's dairy, the cost would have been higher. Aside from the great advantage to the patients of carrying on these farm activities, the products raised during the year had an estimated money value of \$20,130.20. That portion used in the institution was valued at \$9,810.09, or \$84.51 per capita of inmates and the cost of its production at \$2,764.59, or \$23.82 per capita. Last year farm and garden products used were estimated to be worth \$70.09 per capita.

The State this year spent \$79,350.34 on the four new cottages, general permanent improvements to the property and a new dairy herd. Unavoidable delay occurred in connection with the work on the new cottages and they have not yet been occupied. Governor Marshall granted the institution \$1,010 from his contingent fund for sewer construction, \$400 of this being in lieu of a like sum which reverted to the general fund from a specific appropriation. The Governor also authorized the management to purchase a new dairy herd, at an expense of \$775, the institution to sell enough of the cows then on the farm to equal that amount, which was to be turned into the State treasury. This was done.

TUBERCULOSIS HOSPITAL, ROCKVILLE.

DR. H. B. LEAVITT, Superintendent.

Real estate, 504 acres. Capacity, 100. Since it was opened April 1, 1911, this hospital has received 166 patients, 77 males and 89 females. Fifteen of those admitted were sixteen years of age or less, 5 boys and 10 girls. By the close of the year 70 patients had left the hospital and the actual population on September 30, 1911, was 46 males and 50 females, total 96. For the first six months of its existence the hospital had an average of 60 patients and 38.22 officers and employees.

The long delay in opening this institution was ended when the Legislature of 1911 placed \$24,400 at its disposal for current expenses until the beginning of the new fiscal year. The following table indicates that the hospital lived within the means provided for its maintenance, and spent \$11,087.50 toward permanent improvements; total expenditures, \$35,231.59.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$23,400 00	\$23,175 33	\$224 67
Trustees' salaries	1,000 00	968 76	31 24
Total	\$24,400 00	\$24,144 09	\$255 91
New Buildings and Extraordinary Repairs—			
Building and equipment.....	\$22,175 00	\$11,087 50	\$11,087 50
Grand total	\$46,575 00	\$35,231 59	\$11,343 41

Farm and garden products of its own raising and estimated to be worth \$1,236 were used by the hospital during the six months. The estimated cost of production was \$645.46.

STATE SCHOOL FOR THE DEAF, INDIANAPOLIS.

RICHARD O. JOHNSON, Superintendent.

Real estate, 91.94 acres. Capacity, 250. The school opened the year with 295 pupils enrolled. During the year there were 46 additions and 53 withdrawals. At the close of the school year the enrollment was 288, 20 of whom were temporarily absent and 268 in the school—137 boys and 131 girls. The daily average attendance shows an increase—284.34 in 1910 and 296.73 in 1911. The average number of officers and employes for the year was 88—one to every 3.37 pupils.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$70,000 00	\$70,000 00
Additional maintenance (Governor's contingent fund)	1,362 97	1,362 97
Industries	6,000 00	4,828 87	\$1,171 13
Total	\$77,362 97	\$76,191 84	\$1,171 13

The cost of maintaining the school was practically the same as in 1910. In anticipation of moving to the new location, only a small sum was spent toward keeping the old buildings in livable condition, but somewhat greater expense was incurred in other departments. On the whole, there was an increase of \$3,103.83, most of which is accounted for by the greater cost of fuel. Without the help of \$1,362.97 from the Governor's contingent fund, the school could not have closed the year without a deficit in its

maintenance account. The per capita cost of gross maintenance, because of the higher average attendance, shows a decrease of 27 cents. Decreases of \$3.10 per capita in administration, 37 cents in clothing, and \$2.18 in repairs, are offset by per capita increases of \$1.80 in subsistence and \$3.58 in office, domestic and outdoor departments. Total per capita cost, \$256.77.

The estimated value of produce raised on the grounds and used in the school was \$954.43, or \$3.22 per capita, costing \$572.66, or \$1.93 per capita.

STATE SCHOOL FOR THE BLIND, INDIANAPOLIS.

GEORGE S. WILSON, Superintendent.

Real estate, 7.68 acres. Capacity, 150. The enrollment at the beginning of the school year was 126. With 32 additions and 30 withdrawals during 1910-11, the enrollment at the close of the year was 128 pupils, all of whom were present, 57 boys and 71 girls. The daily average number actually present during the year was 127.19, a decrease from 1910 of 5.46. The average number of officers and employes was not changed from the preceding year, 54. The pupil attendance averaged 2.36 to each person on salary.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$35,000 00	\$34,994 93	\$5 07
Repairs	2,500 00	2,499 56	44
Industries	3,000 00	2,945 12	54 88
Library	500 00	482 79	17 21
Total	\$41,000 00	\$40,922 40	\$77 60

The Legislature appropriated \$41,000 for the current expenses of the school for the year 1910-11, and all but \$77.60 of this was used. Compared with the preceding year, the total expenditures were less by \$65.14.

The per capita cost of maintenance, \$321.74, shows increases over last year of \$5.00 in administration, 60 cents in subsistence, \$6.34 in office, domestic and outdoor departments, 81 cents in repairs, a total increase of \$12.75.

STATE PRISON, MICHIGAN CITY.

E. J. FOGARTY, Warden.

Real estate, 101 acres. Number of cells, 1,330; new hospital for criminal insane, when completed, 145. The enrollment on the last day of the fiscal year, September 30, 1911, was 1,071, the daily average attendance for the year having been 1,077.5, a decrease from 1910 of 26 in the enrollment and 35.42 in the daily average attendance. During the year 248 prisoners were received direct from courts and 76 were returned for various reasons; 349 were released. The average number of officers and employes during the year was 71; last year, 63. The ratio of prisoners to employes in 1911 was 15.18 to one.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$108,000 00	\$108,000 00
Additional maintenance (excess population)	21,291 30	21,289 18	\$2 12
Additional maintenance (Governor's emergency fund)	1,959 27	1,959 27
Repairs	5,000 00	4,990 71	9 29
Discharged prisoners	4,000 00	2,567 73	1,432 27
Supervision of paroled prisoners	6,500 00	6,500 00
Additional for above (specific appropriation, 1911)	1,500 00	1,389 11	110 89
Insane criminals	3,000 00	3,000 00
Additional for above (specific appropriation, 1911)	3,000 00	2,878 79	121 21
Supervision suspended sentence cases	1,800 00	1,560 36	239 64
Library	750 00	631 27	118 73
Total	\$156,800 57	\$154,766 42	\$2,034 15
New Buildings and Extraordinary Repairs—			
New cell house (balance)....	\$26,857 15	\$26,854 67	\$2 48
Fire loss (Governor's emergency fund)	1,334 99	1,334 99
Total	\$28,192 14	\$28,189 66	\$2 48
Grand total	\$184,992 71	\$182,956 08	\$2,036 63

The prison's average population was less this year than last, but its current expenses, \$154,766.42, were higher. The force of employes was increased and administrative expenses were consequently higher by \$2,277.10. The expenditures for clothing were also greater by \$1,471.14. On the other hand, the year's food supply cost \$1,851.37 less, the office, domestic and outdoor departments \$1,523.44 less, and the repairs \$4.39 less, in consequence of which the net total increase amounted to only \$369.04. The Legislature of 1911 added \$4,500 to the prison's regular appropriations for this year's current expenses. The maintenance appropriation of \$108,000, augmented though it was by the per capita allowance of \$21,291.30, proved inadequate and the Governor granted \$1,959.27 from his contingent fund in order to avoid a deficit. Unused balances from other regular appropriations, however, amounted to \$2,034.15. In addition to the current expenses, the prison spent \$26,854.67 toward completing the new cell house, and \$1,334.99 from the Governor's contingent fund to repair the loss occasioned by a fire in one of the shop buildings. Grand total expenditures, \$182,956.08.

The gross cost of maintenance for the year was \$143.63 per capita, an increase of \$4.90 over the preceding year. The increases show in administration, \$3.90 per capita, clothing \$1.51 and repairs 14 cents. There were decreases in subsistence of 49 cents, and in office, domestic and outdoor departments of 16 cents.

The estimated value of produce raised on the institution farm and used during the year was \$2,208.18, or \$2.05 per capita, and the cost of producing it \$635.89, or 59 cents per capita.

INDIANA REFORMATORY, JEFFERSONVILLE.

DR. D. C. PFYTON, Superintendent.

Real estate, 29.5 acres. Number of cells, 968. On September 30, 1911, there were 1,099 inmates present, an increase over the same day last year of 31. The daily average attendance during the year was 1,091.55, while for the preceding year it was 1,106.23. Three hundred and fifty-one inmates were received during the year and 80 were returned for various reasons. Three hundred and ninety-eight were released by discharge, parole or death. The average number of officers and employes was 85.66—one for every group of 12.74 inmates.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$122,000 00	\$122,000 00
Additional maintenance (ex- cess population)	22,991 79	22,958 60	\$33 19
Repairs	6,000 00	5,958 66	41 34
Trade schools	20,000 00	19,984 00	16 00
School of letters	7,000 00	6,158 05	841 95
Paroled and discharged pris- oners	12,000 00	8,603 71	3,396 29
Supervision of paroled prison- ers	6,000 00	5,902 38	97 62
Library	1,000 00	887 65	112 35
Total	\$196,991 79	\$192,453 05	\$4,538 74
New Buildings and Extraordinary Repairs—			
Laundry machinery and ware- house	\$3,356 96	\$3,312 51	\$44 45
Additional reservoir	3,000 00	2,340 74	659 26
Water used under former con- tract	2,300 00	2,300 00
Real estate	2,500 00	2,429 30	70 70
Track scales	1,000 00	944 39	55 61
Heating system (Governor's contingent fund)	317 07	317 07
Entertainment International Prison Congress delegates (Governor's contingent fund)	163 24	163 24
Total	\$12,637 27	\$11,807 25	\$830 02
Grand total	\$209,629 06	\$204,260 30	\$5,368 76

The decrease in the institution's population compared with 1910 was accompanied by a lessening in current expense, amounting to \$6,185.53. Each of the five classes into which the maintenance cost is divided shows a decrease except subsistence. This was higher in 1911 than in 1910 by \$1,626.19. The institution lived within the means provided and varying sums from its seven regular appropriations reverted to the general fund.

In addition to its current expenses, the Reformatory spent \$11,326.94 for permanent improvements. From his contingent fund the Governor paid \$317.07 on the heating system in lieu of a like sum which reverted to the general fund at the close of the preceding fiscal year, pending settlement of a claim.

The cost of gross maintenance, based on the operating expenses and the average daily attendance, was \$176.31. This is a decrease of \$3.25 per capita from the preceding year. There was an increase of 51 cents per capita in the administration expense of the institution, of \$2.06 in the subsistence and four cents in repairs. There were decreases in clothing of 81 cents and in office, domestic and outdoor departments of \$5.05.

It is interesting to compare the per capita cost of the Reformatory and the State Prison. Both institutions have practically the same number of inmates but the Reformatory on account of its schools has the greater number of employees. Last year the per capita cost at the Reformatory was \$176.31, at the State Prison \$143.63, a difference of \$32.68. The chief items entering into this was \$19.02 per capita for teachers, \$7.62 for food supplies, \$5.47 for clothing, \$5.13 for supplies for the school and industrial departments. On the other hand the Reformatory fuel bill was not so heavy as that of the State Prison by over \$5,000.

The value of the produce raised on the institution farm and consumed during the year was \$969.23, or 89 cents per capita; the cost of producing it, \$350, or 32 cents per capita.

INDIANA WOMAN'S PRISON, INDIANAPOLIS.

MISS EMILY E. RHOADES, Superintendent.

Real estate, 15.61 acres. Capacity: penal department, 50; correctional department, 100. There were 61 women in the prison on the last day of the fiscal year, September 30, 1911—three more than on the same day last year. Seventeen were received from the courts and 9 were re-admitted during the year. Twenty-three were withdrawn. The average daily attendance during the year was 58.09. In 1910 it was 57.36. In the correctional department which receives short-term offenders, the population on September 30, 1911, was 65, an increase of seven over the same day last year. Two hundred and one women were received during the year and 194 released. The average daily attendance was 60.90, an increase of 7.75 over last year. The average number of officers and employees was 20, or one to 5.95 inmates.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$19,000 00	\$19,000 00
Additional maintenance (ex- cess population)	10,187 85	7,872 86	\$2,314 99
Repairs	2,000 00	1,999 14	86
Discharged prisoners	1,000 00	438 13	561 87
Library	300 00	293 51	6 49
Total	\$32,487 85	\$29,603 64	\$2,884 21
New Buildings and Extraordinary Repairs—			
New stairway	\$1,800 00	\$1,800 00
Total	\$1,800 00	\$1,800 00
Grand total	\$34,287 85	\$31,403 64	\$2,884 21

With the \$10,187.85 additional per capita allowance which became available for maintenance, the institution closed the year without a deficit. Its current expenses, \$29,603.64, were greater by \$1,612.76 than in 1910. This was due chiefly to the greater amount spent for fuel. A little more was also spent this year for repairs and for administration, but there were decreases in the amounts required for subsistence and clothing.

The gross per capita cost of maintaining the institution was \$248.79, a decrease of \$4.49 from 1910. These decreases are shown in administration \$4.40, in subsistence \$5.26, in clothing \$8.73. The per capita cost of clothing in 1910 was \$12.14, this year \$3.41. Increases are shown in office, domestic and outdoor departments of \$12.29 and in repairs of \$1.61.

The value of farm and garden products raised and used during the year is estimated at \$408.49, or \$3.43 per capita, and the cost of producing it \$158.83, or \$1.33 per capita.

INDIANA GIRLS' SCHOOL, CLERMONT.

DR. KENOSHA SESSIONS, Superintendent.

Real estate, 127.5 acres. Capacity, 245. There were 299 girls present on September 30, 1911, a decrease of 27 from the same day last year. Ninety-two new girls were received and 228 readmitted. Three hundred and forty-seven were released during the year by discharge or parole. The average daily attendance was 309.76, a decrease of 9.89 from 1910. The average number of officers and employes was 55—one for every 5.63 girls.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$53,000 00	\$53,000 00
Additional maintenance (ex- cess population)	13,065 86	13,013 86	\$52 00
Discharge, clothing and parole	1,500 00	1,500 00
Library	300 00	297 90	2 10
Industries	4,500 00	4,474 50	25 50
Total	\$72,365 86	\$72,286 26	\$79 60

There was a decrease of \$4,932.26 from last year in the cost of maintaining the school. This decrease, combined with a lower average attendance resulted in a reduction of \$8.21 in the per capita cost. This is shown mainly in the smaller amount spent for repairs: in 1910, \$33.15 per capita, this year \$6.69. On the other hand the cost of subsistence shows an increase of \$5.61 and of office, domestic and outdoor departments \$12.31. Total per capita cost, \$233.36. The fuel bill was \$10,184.42 in 1911—more than \$3,000 greater than in 1910.

The institution closed the year with a balance of \$27.60 in its regular appropriations and \$52 in the sum which became available for the maintenance of population in excess of 235, upon which the regular appropriations were based.

The value of produce raised and used during the year is estimated at \$4,387.92, or \$14.17 per capita; the cost of producing it \$1,391.37, or \$4.49 per capita.

INDIANA BOYS' SCHOOL, PLAINFIELD.

GUY C. HANNA, Superintendent.

Real estate, 527.87 acres. Capacity, 600. On September 30, 1911, there were 602 boys present. The daily average attendance during the year was 640.15, a decrease of 41.66 from the preceding year. Two hundred and forty-five boys were received and 148 readmitted during the year. Four hundred and fifty-three boys were released by discharge, parole or death. The average number of officers and employes was 58.29—one to 10.98 boys.

Expenditures.

Operating Expenses—	Appropriation.	Expended.	Balance.
Maintenance	\$80,000 00	\$80,000 00
Additional maintenance (ex- cess population)	13,984 03	13,915 18	\$68 85
Repairs	7,000 00	7,000 00
Industries	10,000 00	10,000 00
Parole agents	3,000 00	2,982 59	17 41
Library	200 00	199 38	62
Total	\$114,184 03	\$114,097 15	\$86 88
New Buildings and Extraordinary Repairs—			
New chapel	\$15,000 00	\$14,999 28	\$0 72
Water tower	2,000 00	2,000 00
New mangle	1,300 00	1,289 44	10 56
Brick yard	300 00	300 00
Total	\$18,600 00	\$18,588 72	\$11 28
Grand total	\$132,784 03	\$132,685 87	\$98 16

Compared with 1910, less money was spent for subsistence, for clothing and for office, domestic and outdoor departments, the decrease aggregating \$8,189.24. On the other hand, salaries and wages were higher by \$2,001.65, making the net decrease in gross maintenance \$6,187.59. The school closed the year without a deficit in any of its funds. In addition to the regular appropriation for maintenance, \$13,984.03 became available through the extra per capita provision of the appropriation act, and all but \$68.85 of this was spent.

The efficiency of the school's equipment has been increased this year by the installation of a new mangle, the erection of a new chapel and a water tower and some additional expenditures on the brick plant. For all these the State paid out \$18,588.72, which added to the current expenses, makes a grand total of \$132,685.87.

The gross per capita cost of maintenance was \$178.23, an increase over the preceding year of \$1.81. The per capita cost of administration was \$50.13, an increase of \$6.00; subsistence \$28.64, a decrease of \$3.41; clothing \$20.84, a decrease of 54 cents; office, domestic and outdoor departments \$67.69, a decrease of 90 cents; repairs \$10.93, an increase of 66 cents.

The value of the produce raised on the farm and used during the year was estimated at \$7,270.60, or \$12.04 per capita, the cost of producing it, \$3,600.00, or \$5.96 per capita.

CENTRAL HOSPITAL FOR INSANE, INDIANAPOLIS.

YEAR ENDING.	POPULATION.		EXPENDITURES.		PER CAPITA COST OF MAINTENANCE.							Farm Products.	Maintenance, Including Farm Products.
	Enrolled	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.		
October 31, 1891	1,541	1,394.4	\$281,992 10	\$11,438 90	\$293,431 00	\$6 16	\$8 91	\$62 84	\$46 49	\$77 83	\$202 23		
October 31, 1892	1,504	1,418.2	278,207 04	39,149 19	317,356 23	6 16	10 53	62 82	42 32	74 34	196 17		
October 31, 1893	1,512	1,430.6	286,802 36	6,764 07	293,566 43	6 67	17 29	61 45	39 66	75 40	200 47		
October 31, 1894	1,498	1,442.4	286,603 61	2,764 66	289,368 27	6 35	10 21	63 92	53 62	64 59	198 69		
October 31, 1895	1,543	1,448.04	287,000 00		287,000 00	6 39	10 36	61 75	58 22	61 47	198 19		
October 31, 1896	1,581	1,493.9	260,000 00	18,000 00	278,000 00	4 97	6 69	57 92	49 07	55 39	174 04		
October 31, 1897	1,613	1,495.8	260,000 00		260,000 00	5 36	6 69	57 97	45 82	57 99	173 83		
October 31, 1898	1,680	1,503.9	242,000 00		242,000 00	3 09	6 65	57 61	33 99	59 57	160 91		
October 31, 1899	1,784	1,583	245,000 00		245,000 00	4 99	6 32	53 80	35 62	53 95	154 77		
October 31, 1900	1,816	1,619.46	283,711 24	60,822 31	344,533 55	6 21	17 29	55 26	35 55	60 88	175 19	\$2 15	
October 31, 1901	1,845	1,668.71	281,115 17	74,773 41	355,888 58	4 69	14 98	53 82	34 10	60 87	168 46	\$2 15	
October 31, 1902	1,904	1,720.67	311,191 53	79,077 73	390,269 26	5 74	15 00	53 54	41 87	64 70	180 85	2 03	
October 31, 1903	1,946	1,774.77	306,061 26	43,983 41	350,044 67	5 64	14 72	53 13	34 18	62 78	172 45	2 75	
October 31, 1904	1,982	1,787.64	328,912 51	43,419 15	372,331 66	6 33	14 93	56 34	43 98	62 41	183 99	2 90	
October 31, 1905	2,070	1,832.98	332,794 67	2,841 30	335,635 97	6 15	16 09	55 29	42 93	61 10	181 56	2 96	
October 31, 1906	1,976	1,858.89	341,813 49	3,948 30	345,761 79	6 39	18 27	56 69	41 94	60 59	183 88	1 92	
September 30, 1907	2,035	1,838.00	312,893 01		312,893 01	5 95	14 03	57 17	35 82	57 27	170 24	2 46	
September 30, 1908	2,069	1,838.34	363,200 72	21,707 82	384,908 54	6 92	19 55	68 95	39 77	62 38	197 57	3 21	
September 30, 1909	1,995	1,812.78	360,396 15		360,396 15	6 77	12 33	69 77	41 10	65 60	195 57	2 77	
September 30, 1910	1,529	1,788.67	358,161 43	14,313 99	372,475 42	6 96	13 17	71 43	39 44	69 23	200 23	3 25	
September 30, 1911.	1,574	1,423.02	347,944 26	3,493 03	351,437 29	7 87	19 10	88 33	55 14	74 07	244 51	4 07	

*Owing to a change in the date of the fiscal year, these figures are for 11 months only.

BOARD OF STATE CHARITIES.

NORTHERN HOSPITAL FOR INSANE, LOGANSPORT.

YEAR ENDING.	POPULATION.		EXPENDITURES.			PER CAPITA COST OF MAINTENANCE.						Farm Products.	Maintenance, Including Farm Products.
	Enrolled.	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.		
October 31, 1891	414	377.3	\$81,395.34		\$84,395.34	\$4.44	\$19.41	\$83.87	\$50.35	\$65.61	\$223.68		
October 31, 1892	433	393.9	81,999.95		84,999.95	5.73	10.79	82.54	47.04	65.69	215.79		
October 31, 1893	440	413.49	85,000.98	\$10,000.00	95,000.98	5.38	14.43	81.25	46.61	61.89	205.56		
October 31, 1894	507	446.97	89,885.83	14,932.66	104,818.49	5.92	12.61	78.06	48.80	55.71	201.10		
October 31, 1895	558	505.25	95,000.00	10,000.00	105,000.00	5.97	21.04	72.81	42.57	45.63	188.02		
October 31, 1896	618	558.03	90,000.00	10,000.00	100,000.00	5.17	14.31	68.93	33.03	41.09	162.53		
October 31, 1897	632	585.03	90,000.00	2,500.00	92,500.00	3.50	11.20	66.87	29.37	42.90	153.84		
October 31, 1898	636	604.45	94,500.00		94,500.00	4.48	10.96	65.94	31.42	43.54	156.34		
October 31, 1899	640	606.52	94,500.00	35,583.83	130,083.83	1.97	8.35	68.97	33.40	43.72	155.81		
October 31, 1900	731	620.83	101,826.07	53,902.56	155,728.63	2.90	8.05	67.78	39.59	45.70	164.02	\$11.18	\$175.20
October 31, 1901	821	730.30	128,023.96		128,023.96	3.46	8.85	70.90	39.04	52.94	175.28	10.77	186.05
October 31, 1902	824	734.08	126,303.68	20,294.27	146,597.95	4.00	5.03	63.11	38.43	52.60	163.17	10.55	173.72
October 31, 1903	929	791.38	131,338.41	13,664.34	145,002.75	3.41	5.38	68.17	39.87	49.13	163.06	13.21	179.17
October 31, 1904	946	831.89	143,307.22	16,421.98	159,729.20	5.75	3.59	69.19	42.90	50.92	171.65	9.76	181.41
October 31, 1905	952	852.41	138,884.76		138,884.76	5.61	3.76	68.46	39.25	45.85	162.93	16.97	179.90
October 31, 1906	955	848.6	142,977.52	49,608.30	192,585.82	4.20	3.97	73.16	40.52	46.94	168.49	15.59	179.08
October 31, 1907	969	895.05	138,258.31	46,164.50	184,422.81	4.97	4.46	72.81	39.48	45.92	172.59	17.90	187.37
September 30, 1908	1,054	960.55	158,115.21	12,811.86	170,927.07	4.64	5.33	66.12	40.27	51.56	174.61	14.76	189.39
September 30, 1909	1,097	945.93	172,392.17		172,392.17	4.40	5.04	74.84	42.56	55.41	182.25	14.46	196.71
September 30, 1910	1,105	986.15	189,464.96	34,299.16	223,764.12	5.19	5.87	74.40	51.60	55.06	192.12	17.66	209.78
September 30, 1911	1,060	977.65	190,822.41	12,430.45	203,252.86	4.81	7.12	80.04	52.15	51.06	195.18	20.08	215.26

*()wing to a change in the date of the fiscal year, these figures are for 11 months only.

EASTERN HOSPITAL FOR INSANE, RICHMOND.

YEAR ENDING.	POPULATION.		EXPENDITURES.				PER CAPITA COST OF MAINTENANCE.					Farm Products.	Maintenance, Including Farm Products.
	Enrolled.	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.		
October 31, 1891....	410	341.9	\$83,211.15	\$83,211.15	\$3.07	\$15.70	\$97.98	\$38.46	\$68.16	\$243.37
October 31, 1892....	439	391.1	84,932.10	84,932.10	4.53	22.39	89.34	43.81	57.09	217.16
October 31, 1893....	451	422.38	84,894.18	84,894.18	4.14	6.90	83.10	41.42	65.43	200.99
October 31, 1894....	450	431.44	94,882.96	94,882.96	5.54	26.26	81.48	51.36	55.28	219.92
October 31, 1895....	456	436.4	94,973.96	\$25,000.00	119,973.96	4.99	35.74	78.85	49.09	48.96	217.63
October 31, 1896....	519	465.6	89,996.22	24,994.57	114,990.79	4.11	22.71	73.00	43.44	50.03	193.29
October 31, 1897....	542	508.9	88,896.01	88,896.01	3.69	19.92	67.15	37.62	46.30	174.68
October 31, 1898....	545	520.9	93,162.57	93,162.57	5.72	9.59	70.44	40.04	53.06	178.85
October 31, 1899....	549	531.6	94,985.25	23,692.61	118,677.86	2.79	9.40	72.05	38.18	56.26	178.68
October 31, 1900....	601	570.3	102,201.84	51,506.28	153,708.12	4.26	8.77	69.93	40.51	56.04	179.21	\$13.66	\$192.87
October 31, 1901....	643	616.7	117,506.40	117,506.40	5.64	12.16	74.16	44.59	53.99	190.54	15.02	205.56
October 31, 1902....	645	625.04	108,927.83	52,458.66	161,386.49	4.79	6.36	69.21	37.09	56.82	174.27	13.96	188.23
October 31, 1903....	694	656.34	112,785.77	12,304.17	125,089.94	4.57	6.08	67.95	35.62	57.62	171.84	16.09	187.93
October 31, 1904....	722	686.32	120,997.02	7,817.84	128,814.86	6.34	7.26	66.89	44.42	51.39	176.30	14.92	191.22
October 31, 1905....	739	714.55	126,856.63	126,856.63	6.44	6.98	64.57	48.09	51.45	177.53	16.56	194.09
October 31, 1906....	751	731.14	129,081.74	21,757.19	150,838.93	5.68	8.16	63.41	45.10	52.17	176.52	17.08	193.60
*September 30, 1907....	752	730.17	118,222.41	1,279.92	119,502.33	4.38	7.53	61.03	42.46	46.51	161.91	16.98	178.89
September 30, 1908....	789	744.43	135,405.42	79,416.42	214,821.84	6.26	10.00	67.47	42.81	55.35	181.89	16.04	197.93
September 30, 1909....	810	730.47	150,857.18	150,857.18	5.85	9.48	68.42	48.21	58.89	190.85	14.37	205.22
September 30, 1910....	786	795.04	151,421.17	12,366.32	163,787.49	7.50	9.43	69.51	46.35	60.36	190.45	19.34	209.79
September 30, 1911....	827	793.88	154,937.12	1,619.29	156,556.41	4.85	9.35	71.88	44.90	61.48	195.16	18.33	213.49

*Owing to a change in the date of the fiscal year, these figures are for 11 months only.

BOARD OF STATE CHARITIES.

SOUTHERN HOSPITAL FOR INSANE, EVANSVILLE.

YEAR ENDING.	POPULATION.		EXPENDITURES.			PER CAPITA COST OF MAINTENANCE.						Farm Products.	Maintenance, Including Farm Products.
	Enrolled.	Daily Average.	Maintenance.	Permanent Improve-ments.	Total.	Clothing.	Repairs.	Adminis-tration.	Office, Domestic and Outdoor Depts.	Sub-sistence.	Gross Maintenance.		
October 31, 1891.....	381	235.5	\$84,999.98	\$34,052.44	\$119,052.42	\$9.72	\$66.85	\$111.52	\$103.81	\$69.03	\$360.93		
October 31, 1892.....	392	359.45	78,111.04	1,531.52	79,642.56	7.02	40.66	78.82	36.37	54.44	217.31		
October 31, 1893.....	402	380.83	83,141.27		83,141.27	6.24	38.53	74.51	39.68	59.36	218.32		
October 31, 1894.....	424	387.49	79,806.81		79,806.81	5.42	27.16	73.90	41.63	57.84	205.95		
October 31, 1895.....	436	401	84,984.80	15,000.00	99,984.80	7.96	30.35	71.05	46.69	55.88	211.93		
October 31, 1896.....	435	400	76,500.00	15,000.00	91,500.00	5.98	25.47	70.37	37.50	61.23	191.25		
October 31, 1897.....	432	402	76,500.00	9,303.33	85,803.33	6.54	14.19	74.43	34.89	60.24	190.29		
October 31, 1898.....	534	459	86,000.00	12,696.67	98,696.67	6.96	8.71	73.62	41.58	56.49	187.36		
October 31, 1899.....	547	494	90,666.67	28,424.44	119,091.11	6.27	8.10	68.99	40.20	59.98	183.44		
October 31, 1900.....	643	546	100,631.70	37,575.56	138,207.26	4.64	9.16	64.23	46.09	60.18	184.30	\$7.48	\$191.78
October 31, 1901.....	652	592	100,649.00		100,649.00	3.49	8.45	62.96	41.45	53.67	170.02	7.34	177.36
October 31, 1902.....	666	619.52	103,438.50	6,684.50	110,123.00	4.07	6.46	63.59	33.91	58.94	166.97	8.37	175.34
October 31, 1903.....	671	617.29	104,563.21		104,563.21	4.11	7.19	62.08	32.27	63.74	169.39	8.45	177.84
October 31, 1904.....	682	626.98	107,474.14	14,870.43	122,344.57	6.07	6.62	60.19	43.21	55.32	171.41	15.01	186.42
October 31, 1905.....	684	611.33	108,584.06	2,512.65	111,096.71	6.43	6.25	60.33	47.96	56.65	177.62	8.58	186.20
October 31, 1906.....	697	642.88	116,122.30	21,615.73	137,738.03	6.04	10.49	62.33	40.31	61.18	180.35	6.52	186.87
September 30, 1907.....	701	665.33	108,902.73	11,795.87	120,698.60	5.58	9.79	54.63	38.61	57.57	166.18	6.66	172.84
September 30, 1908.....	721	662.69	117,326.95	83,918.69	201,245.64	6.79	9.06	59.95	36.90	64.35	177.05	6.01	183.06
September 30, 1909.....	771	684.18	122,083.14	2,297.00	124,380.14	6.51	8.70	58.71	45.13	59.39	178.44	14.75	193.19
September 30, 1910.....	798	736.70	127,813.15	19,594.73	147,407.88	6.08	7.35	55.78	38.48	65.80	173.49	14.10	187.59
September 30, 1911.....	807	746.54	131,855.15	75,393.99	207,249.14	5.84	8.03	55.32	46.72	60.71	176.62	12.76	189.38

*Owing to a change in the date of the fiscal year, these figures are for 11 months only.

YEAR ENDING.	POPULATION.		EXPENDITURES.			PER CAPITA COST OF MAINTENANCE.						Farm Products.	Maintenance, Including Farm Products.
	Enrolled	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.		
September 30, 1911.	757	603.83	\$135,618.44	\$135,618.44	\$8.30	\$4.86	\$73.81	\$77.93	\$59.70	\$224.60	\$12.04	\$236.64

*Opened August 23, 1910.

STATE SOLDIERS' HOME, LAFAYETTE.

YEAR ENDING.	POPULATION.		EXPENDITURES.			PER CAPITA COST OF MAINTENANCE.						Farm Products.	Maintenance, Including Farm Products.
	Enrolled	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.		
October 31, 1898.....	513	437.75	\$70,876.06	\$7,234.55	\$78,110.61	\$12.08	\$17.79	\$32.62	\$50.54	\$48.87	\$161.90		
October 31, 1899.....	636	480.5	81,119.20	6,468.66	87,587.86	11.31	11.10	37.47	58.35	50.59	168.82		
October 31, 1900.....	643	525.25	87,020.84	9,111.45	96,132.29	2.59	13.31	42.33	47.54	59.91	165.68	\$2.18	\$67.86
October 31, 1901.....	694	497	82,256.07	14,461.70	96,717.77	1.79	10.47	47.89	44.62	60.74	165.31	1.21	166.72
October 31, 1902.....	759	549.5	91,931.48	22,012.56	113,944.04	1.37	9.16	43.10	54.86	58.81	167.30	1.55	167.75
October 31, 1903.....	811	592	90,985.62	22,195.50	113,181.12	1.18	14.67	40.13	40.01	57.70	153.69	1.55	155.24
October 31, 1904.....	847	640	105,767.11	38,204.17	143,971.28	1.38	8.94	43.43	48.43	63.08	165.26	59	165.85
October 31, 1905.....	993	680.25	103,731.32	578.85	104,310.17	95	7.36	42.67	44.15	57.36	152.49	63	153.12
October 31, 1906.....	1,136	706	125,052.25	77,135.02	202,187.27	1.20	15.44	45.90	53.69	60.90	177.13	1.64	178.77
September 30, 1907.....	1,182	749	116,366.75	29,944.94	146,311.69	1.12	9.42	43.98	43.90	56.94	155.36	1.70	157.06
September 30, 1908.....	1,239	772	137,401.48	104,363.85	241,765.33	1.27	8.77	48.36	50.71	68.87	177.98	76	178.74
September 30, 1909.....	1,350	865.5	151,742.64	2,155.90	153,898.54	9.77	8.48	40.92	50.88	65.27	175.32	06	175.38
September 30, 1910.....	1,430	925.5	173,705.07	48,606.13	222,311.20	12.95	13.26	42.73	44.81	73.94	187.69		
September 30, 1911.....	1,410	898	170,454.86		170,454.86	8.84	7.03	46.23	48.66	79.05	189.81		

*Owing to a change in the date of the fiscal year, these figures are for 11 months only.

SOLDIERS' AND SAILORS' ORPHANS' HOME, KNIGHTSTOWN.

YEAR ENDING.	POPULATION.		EXPENDITURES.			PER CAPITA COST OF MAINTENANCE.						Farm Products.	Maintenance, Including Farm Products.
	Enrolled	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.		
October 31, 1891.	587	570	\$119,617 67	\$31,538 20	\$151,155 87	\$31 94	\$2 76	\$46 41	\$58 55	\$70 19	\$209 85		
October 31, 1892.	624	546 62	94,990 65	24,303 65	119,303 30	19 21	4 94	44 04	43 75	61 85	173 79		
October 31, 1893.	607	568 72	95,062 71	7,278 99	102,341 70	20 92	3 02	43 82	31 94	67 04	167 04		
October 31, 1894.	644	556	100,000 00	1,475 34	101,475 34	21 51	5 20	44 04	38 74	69 76	179 85		
October 31, 1895.	636	559	100,000 00	1,000 00	101,000 00	16 77	5 20	44 06	43 39	66 32	175 74		
October 31, 1896.	623	550 75	89,999 80	752 04	90,751 84	20 34	3 42	45 26	38 16	58 23	163 41		
October 31, 1897.	629	542 25	91,855 36	1,517 50	93,372 86	19 83	5 45	50 66	38 20	55 26	169 40		
October 31, 1898.	639	546 25	93,637 99		93,637 99	20 19	8 88	52 34	35 52	54 48	171 41		
October 31, 1899.	639	560 75	94,549 90	4,420 00	99,469 90	16 80	6 24	51 70	39 46	54 41	168 61		
October 31, 1900.	641	567	94,050 00		94,050 00	17 73	5 29	51 90	33 32	57 63	165 87		\$169 39
October 31, 1901.	630	558 25	94,047 52		94,047 52	19 15	5 37	53 23	32 38	58 34	168 47	4 53	173 00
October 31, 1902.	603	541 5	94,500 00	8,957 08	103,457 08	13 58	6 46	55 15	36 96	62 37	174 52	4 87	179 39
October 31, 1903.	572	527 5	104,971 81	7,080 88	112,052 69	18 78	6 64	60 16	52 88	60 54	199 00	13 75	212 75
October 31, 1904.	577	512 75	105,380 05	9,633 66	115,013 71	13 02	13 65	64 52	51 60	62 73	205 52	10 45	215 97
October 31, 1905.	532	491 25	106,262 18		106,262 18	19 70	10 18	67 11	57 89	61 43	216 31	11 30	227 61
October 31, 1906.	510	452 5	106,926 80	2,858 73	109,785 53	17 77	11 05	75 78	70 49	61 21	236 30	11 54	247 84
September 30, 1907.	473	444	97,891 65		97,891 65	16 93	10 32	71 01	65 36	56 86	220 48	6 18	226 66
September 30, 1908.	456	413	105,435 97	12,203 15	117,639 12	22 39	12 00	83 03	65 05	72 73	255 39	12 72	268 01
September 30, 1909.	404	372	106,324 77	2,036 80	108,361 56	27 14	13 44	90 71	76 88	77 65	283 62	16 31	292 13
September 30, 1910.	367	305	101,139 15	7,639 01	108,778 16	16 17	18 63	112 49	91 94	92 37	331 60	17 80	349 40
September 30, 1911.	410	331	104,992 30	1,460 81	106,453 11	17 09	18 13	103 73	97 00	81 25	317 20	18 20	335 40

*Owing to a change in the date of the fiscal year, these figures are for 11 months only.

SCHOOL FOR FEEBLE-MINDED YOUTH, FORT WAYNE.

YEAR ENDING.	POPULATION.		EXPENDITURES.			PER CAPITA COST OF MAINTENANCE.						Farm Products.	Maintenance, Including Farm Products
	Enrolled.	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.		
October 31, 1891	377	358.6	\$76,761.32	\$43,003.06	\$119,764.38	\$3.15	\$21.15	\$78.74	\$61.54	\$49.48	\$214.06		
October 31, 1892	428	411.6	81,620.92	7,983.75	89,604.67	9.09	23.36	78.56	41.74	45.55	198.30		
October 31, 1893	455	423.7	80,956.52		80,956.52	8.06	11.84	79.56	48.77	42.84	191.07		
October 31, 1894	488	459.05	87,850.60		87,850.60	12.66	7.71	72.56	59.25	39.19	191.37		
October 31, 1895	504	479	87,723.35	15,000.00	102,723.35	10.31	13.88	71.75	48.93	38.26	183.13		
October 31, 1896	552	506.4	76,809.84	15,000.00	91,809.84	6.51	14.39	60.90	43.32	26.56	151.68		
October 31, 1897	570	538.4	84,417.10		84,417.10	6.42	16.45	64.30	37.60	32.02	156.79		
October 31, 1898	568	544.6	83,839.01		83,839.01	7.05	13.24	59.96	44.53	29.17	153.95		
October 31, 1899	647	569.4	84,553.90		84,553.90	6.58	8.17	56.60	45.08	32.06	148.49		
October 31, 1900	761	656.9	96,500.00	22,701.44	119,201.44	9.08	7.51	53.39	47.26	29.66	146.90		
October 31, 1901	845	746.8	117,311.45	5,500.13	122,811.58	6.67	12.33	57.89	44.42	35.78	157.09	\$11.87	\$158.77
October 31, 1902	906	818.5	103,992.86	46,466.51	150,459.37	5.99	4.89	52.50	34.11	29.56	127.05	12.00	169.00
October 31, 1903	1,048	909.3	119,589.44	31,123.54	150,712.98	6.01	5.92	51.87	36.80	30.92	131.52	9.43	136.48
October 31, 1904	1,012	985.97	126,757.94	19,002.85	145,760.79	3.63	5.19	50.82	39.78	29.14	128.56	6.62	135.18
October 31, 1905	1,039	1,016	129,759.03	19,560.12	149,319.15	3.67	6.31	51.40	34.90	31.43	127.71	6.13	133.84
October 31, 1906	1,035	1,017.37	132,496.26	34,970.90	167,467.16	3.70	7.46	52.53	36.18	30.37	130.24	6.72	136.96
September 30, 1907	1,033	1,019.28	119,783.41	38,133.94	157,917.35	5.28	5.40	47.69	31.30	27.85	117.52	7.31	124.83
September 30, 1908	1,106	1,054.03	136,087.82	53,364.09	189,451.91	6.12	7.12	52.21	31.11	32.55	129.11	9.47	138.58
September 30, 1909	1,149	1,107.43	152,600.10	10,516.29	163,116.39	6.19	6.77	53.36	36.95	34.53	137.80	10.61	148.41
September 30, 1910	1,143	1,123.38	153,515.08	32,967.02	186,482.10	7.08	6.67	52.43	34.85	35.62	136.65	11.80	148.45
September 30, 1911	1,225	1,147.92	156,726.77	40,711.46	197,438.23	6.17	6.53	54.67	37.74	31.42	136.53	15.04	151.57

*Owing to a change in the date of the fiscal year, these figures are for 11 months only.

VILLAGE FOR EPILEPTICS, NEW CASTLE.

YEAR ENDING.	POPULATION.		EXPENDITURES.			PER CAPITA COST OF MAINTENANCE.					Farm Products.	Maintenance, Including Farm Products.
	Enrolled	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.	
September 30, 1908	82	39.37	\$19,049.68	\$64,426.89	\$83,476.57	\$4.08	\$13.81	\$232.57	\$165.59	\$67.81	\$483.86	\$542.46
September 30, 1909	115	105.09	31,472.23	11,769.82	43,242.05	7.76	33.88	115.41	91.21	51.22	299.48	376.02
September 30, 1910	116	115.26	34,677.99	18,718.23	53,396.22	10.47	26.16	111.84	109.43	42.97	300.87	370.96
September 30, 1911	116	116.08	36,161.37	79,350.34	115,511.71	3.97	27.98	114.01	124.99	40.57	311.52	396.03

INDIANA STATE SCHOOL FOR DEAF, INDIANAPOLIS.

YEAR ENDING.	POPULATION.		EXPENDITURES.				PER CENTS COST OF MAINTENANCE.						Farm Products.	Maintenance, Including Farm Products.
	Enrolled	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.			
October 31, 1894	268	281 1	\$59,851 16	\$13,605 17	\$73,456 33	\$4 47	\$10 67	\$105 02	\$40 91	\$51 84	\$212 91			
October 31, 1892	264	290	62,153 21	1,780 98	63,934 19	3 84	10 43	104 61	50 29	45 15	214 32			
October 31, 1893	261	261 5	65,648 04		65,648 04	5 40	11 81	130 30	51 23	52 30	251 04			
October 31, 1894	286	273 25	65,037 53	1,090 00	66,037 53	7 04	17 99	133 01	37 97	42 01	238 02			
October 31, 1895	302	293	66,454 02	5,228 45	71,682 47	6 96	17 99	133 01	39 11	38 98	226 80			
October 31, 1896	312	300 5	63,737 45		63,737 45	5 65	15 08	118 09	35 39	37 89	212 10			
October 31, 1897	317	302	62,058 51	5,616 80	67,675 31	5 25	14 80	111 32	37 16	36 96	205 49			
October 31, 1898	327	308 4	64,320 78	306 99	64,627 77	5 78	8 54	102 07	39 73	42 56	208 56			
October 31, 1899	336	312 8	64,582 84	5,660 68	70,243 52	4 94	9 54	102 07	52 07	37 80	206 48			
October 31, 1900	316	321 72	69,709 48	1,114 40	70,823 88	6 19	12 41	116 18	37 56	44 34	216 68		\$5 27	\$221 95
October 31, 1901	318	309 33	66,546 01		66,546 01	6 73	9 79	108 96	40 03	49 62	215 13		4 92	220 05
October 31, 1902	318	313 03	72,515 33	1,914 52	74,429 85	6 45	12 78	118 34	46 15	47 94	231 06		7 81	239 47
October 31, 1903	328	307 30	72,521 91	492 44	73,014 35	4 90	10 93	127 98	45 66	46 52	253 99		5 62	241 61
October 31, 1904	343	314 95	73,446 82		73,446 82	3 25	3 17	126 79	55 41	44 58	233 20		5 74	238 94
October 31, 1905	325	323 41	72,150 46		72,150 46	2 83	3 07	123 67	49 56	43 96	223 09		5 09	228 18
October 31, 1906	325	314 02	70,577 06		70,577 06	3 07	5 65	128 74	46 12	41 17	224 75		3 51	228 26
September 30, 1907	274	315 78	68,858 25		68,858 25	2 86	2 90	125 37	50 85	36 08	218 06		3 25	221 31
September 30, 1908	288	291 47	74,139 04		74,139 04	2 78		157 32	51 12	43 14	234 36		4 79	250 15
September 30, 1909	310	295 24	74,505 22		74,505 22	2 28	1 41	149 05	58 00	41 62	252 36		3 70	256 06
September 30, 1910	295	284 31	73,087 99		73,087 99	2 99	3 11	154 77	49 76	46 41	257 04		3 29	260 33
September 30, 1911	288	246 73	76,191 84		76,191 84	2 62	53	151 67	53 31	48 21	256 77		3 22	259 99

Owing to a change in the date of the fiscal year, these figures are correct only.

INDIANA SCHOOL FOR BLIND, INDIANAPOLIS.

YEAR ENDING.	POPULATION.		EXPENDITURES.			PER CAPITA COST OF MAINTENANCE.						Farm Products.	Maintenance, Including Farm Products.
	Enrolled.	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.		
October 31, 1894	124	120	\$28,776 36	\$14,025 61	\$42,801 97	\$2 02	\$19 62	\$110 00	\$53 24	\$53 93	\$239 80		
October 31, 1892	132	128 6	30,126 50	2,809 68	31,936 18	3 63	2 36	115 55	48 87	56 08	226 49		
October 31, 1893	127	126 1	33,752 69	101 34	33,854 03	3 41	23 75	122 14	53 24	59 12	267 06		
October 31, 1894	124	125 08	33,133 13		33,133 13	4 48	23 97	129 33	46 48	60 62	264 88		
October 31, 1895	124	116 12	33,738 15		33,738 15	2 21	26 44	137 40	57 98	66 51	290 54		
October 31, 1896	125	124 42	29,584 61	2,498 46	32,083 07	11	50	124 52	59 47	53 18	237 78		
October 31, 1897	133	124 11	30,124 08		30,124 08	22	20 84	116 30	59 73	45 63	242 72		
October 31, 1898	124	122 5	31,255 04		31,255 04	14	26 80	116 24	53 90	57 90	254 98		
October 31, 1899	135	123 7	30,840 79		30,840 79	18	17 02	126 01	52 06	54 05	249 32		
October 31, 1900	134	121 7	32,229 16		32,229 16	08	22 65	120 44	49 02	52 53	244 72		
October 31, 1901	136	120 08	32,242 13		32,242 13		21 45	126 69	53 63	46 09	247 86		
October 31, 1902	127	126 6	34,992 32		34,992 32	52	20 60	133 77	72 72	48 79	276 40		
October 31, 1903	126	120 37	34,992 95	1,996 70	36,989 65	09	20 24	145 34	74 69	50 35	290 71		
October 31, 1904	137	117 81	37,495 81	45,438 66	82,934 47		29 95	158 78	77 16	52 38	318 27		
October 31, 1905	135	128 37	37,495 75		37,495 75		23 90	149 39	65 15	53 65	292 00		
October 31, 1906	128	128 01	39,985 29	1,450 00	41,435 29		20 12	160 80	75 01	53 92	309 94		
September 30, 1907	135	128 37	36,655 67		36,655 67		17 82	118 08	66 64	52 11	285 55		
September 30, 1908	128	123 38	40,994 91	3,146 61	44,141 52		20 25	180 62	62 51	68 88	332 26		
September 30, 1909	127	122 23	40,929 16	20,690 00	70,530 16		20 41	179 64	68 35	66 46	334 86		
September 30, 1910	126	122 65	40,987 54	32,621 54	73,609 08		18 85	170 94	54 01	65 19	308 49		
September 30, 1911	128	127 11	40,922 40		40,922 40		19 66	175 94	60 35	65 79	321 74		

Owing to a change in the date of the fiscal year, these figures are for 11 months only.

INDIANA STATE PRISON, MICHIGAN CITY.

YEAR ENDING	POPULATION.		EXPENDITURES.				PER CAPITA COST OF MAINTENANCE.							Farm Products.	Maintenance, Including Farm Products.
	Enrolled	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.				
October 31, 1891	800	778	\$103,717 98		\$103,717 98	\$6 31	\$5 56	\$48 55	\$27 24	\$45 65	\$133 31				
October 31, 1892	764	793 25	100,000 00		100,000 00	5 96	3 64	46 92	26 77	41 86	126 06				
October 31, 1893	841	789 49	99,998 00		\$12,362 99	5 96	3 09	49 30	27 21	42 56	128 12				
October 31, 1894	908	927 45	100,000 00		10,778 27	4 19	1 60	41 79	24 72	35 52	107 82				
October 31, 1895	854	888 06	100,000 00		5,484 45	5 07	2 57	43 47	27 39	34 10	112 60				
October 31, 1896	842	855 25	100,000 00		5,054 20	6 88	7 55	45 49	25 56	31 44	116 92				
October 31, 1897	884	849 35	105,162 85		63,000 00	6 37	3 23	42 90	34 31	30 12	116 93				
October 31, 1898	782	829 8	106,467 49		106,467 49	4 22	4 22	45 87	41 80	32 32	128 43				
October 31, 1899	769	768 8	124,269 39		7,699 62	4 72	4 55	44 64	48 81	39 69	144 41				
October 31, 1900	822	800 68	103,660 69		17,764 38	5 93	4 37	43 12	39 71	36 33	129 46	\$5 55	\$135 01		
October 31, 1901	864	851 26	118,492 23		4,206 34	3 36	4 05	43 49	55 06	33 24	139 20	4 55	143 75		
October 31, 1902	796	840 64	112,074 44		3,000 00	3 29	5 92	45 93	40 62	37 56	133 32	4 54	137 86		
October 31, 1903	751	774 6	113,637 36		7,967 29	4 57	6 39	54 12	44 29	37 33	146 70	3 99	150 69		
October 31, 1904	833	795 35	118,628 12		8,160 03	4 47	6 29	57 75	45 26	35 38	149 15	3 81	152 96		
October 31, 1905	896	886 9	122,814 60		39,968 40	6 14	5 64	52 20	42 39	32 65	138 62	3 78	142 40		
October 31, 1906	959	918 9	120,610 79		71,991 01	5 26	5 44	51 24	38 71	30 61	131 26	4 24	135 50		
September 30, 1907	1,062	1,017 7	122,671 84		57,626 98	5 65	4 50	42 12	36 68	31 59	123 51	3 31	123 83		
September 30, 1908	1,128	1,005 12	144,765 51		39,795 91	5 48	4 56	53 13	33 32	35 80	132 19	2 09	134 28		
September 30, 1909	1,150	1,181 12	159,702 36		35,112 70	4 53	4 23	52 57	35 31	38 43	135 21	1 91	137 12		
September 30, 1910	1,097	1,112 92	154,397 38		110,515 01	4 13	4 49	54 38	38 27	37 45	138 73	3 07	141 80		
September 30, 1911	1,071	1,077 5	154,766 42		28,189 66	5 65	4 63	58 28	38 11	36 96	143 63	2 04	144 12		

*Owing to a change in the date of the fiscal year, these figures are for 11 months only.

BOARD OF STATE CHARITIES.

INDIANA REFORMATORY, JEFFERSONVILLE.

YEAR ENDING.	POPULATION.		EXPENDITURES.			PER CAPITA COST OF MAINTENANCE.							Farm Products.	Maintenance, Including Farm Products.
	Enrolled	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.			
October 31, 1891	610	592 9	\$74,764 88	\$4,000 00	\$78,764 88	\$7 00	\$10 04	\$42 64	\$29 40	\$37 02	\$126 10			
October 31, 1892	619	592 75	69,417 09	20,000 00	89,417 09	7 72	4 18	43 01	26 18	36 02	117 11			
October 31, 1893	639	634 74	69,100 00	20,000 00	89,100 00	5 91	2 75	38 33	24 60	37 27	108 86			
October 31, 1894	770	708	75,000 00		75,000 00	7 69	11 14	33 22	21 04	32 84	105 93			
October 31, 1895	843	812	91,867 07		91,867 07	8 08	10 57	36 16	21 33	36 90	113 13			
October 31, 1896	817	826 66	85,000 00	10,000 00	95,000 00	7 01	7 06	35 80	20 17	32 78	102 80			
October 31, 1897	819	810 83	91,889 42	34,712 31	126,601 73	10 56	2 78	37 43	21 99	40 57	113 33			
October 31, 1898	944	908 89	104,304 43	22,427 30	126,731 73	7 10	6 98	34 29	25 71	40 48	114 76			
October 31, 1899	918	910 61	109,147 62	6,972 02	116,119 64	6 65	6 01	39 25	29 18	35 02	116 11			
October 31, 1900	877	877	118,806 18	107,492 20	226,888 38	5 52	6 71	43 87	39 44	40 03	135 57	\$2 38	\$137 95	
October 31, 1901	897	895	110,908 06	161,394 47	272,302 53	9 65	8 23	41 86	46 02	51 75	157 51	1 72	159 23	
October 31, 1902	923	912 29	119,218 38	18,503 75	137,722 13	5 98	3 59	42 28	37 86	40 97	130 68	2 25	132 93	
October 31, 1903	945	932 37	128,001 15	2,177 46	130,178 61	8 38	5 51	45 63	38 64	39 13	137 29	1 75	139 04	
October 31, 1904	998	975 61	144,300 18	6,387 35	150,777 53	10 31	5 12	52 01	42 59	37 96	147 99	1 00	148 99	
October 31, 1905	1,084	1,014 36	155,907 39	23,101 08	179,008 47	11 29	4 79	59 27	40 73	33 21	149 29	68	149 97	
October 31, 1906	1,063	1,004 84	162,454 10	4,989 16	167,443 26	10 10	4 56	61 12	39 91	32 69	148 38	58	148 96	
September 30, 1907	1,175	1,144 85	162,636 19	20,378 37	183,014 56	7 97	4 00	56 00	43 97	30 12	142 06	58	142 64	
September 30, 1908	1,250	1,211 55	196,857 39	6,473 30	203,330 69	9 34	3 92	64 35	44 74	40 13	162 48	50	162 98	
September 30, 1909	1,193	1,246 70	216,013 61	58,487 31	274,500 92	14 92	3 94	62 57	48 24	40 86	170 53	60	171 21	
September 30, 1910	1,068	1,106 23	198,638 58	30,769 57	229,408 15	11 93	5 42	65 33	54 36	42 52	179 56	46	180 02	
September 30, 1911	1,101	1,091 55	192,453 05	11,807 25	204,260 30	11 12	5 46	65 84	49 31	44 58	176 31	89	177 20	

*Owing to a change in the date of the fiscal year, these figures are for 11 months only.

INDUSTRIAL SCHOOL FOR GIRLS AND WOMAN'S PRISON, INDIANAPOLIS.

YEAR ENDING.	POPULATION.		EXPENDITURES.			PER CAPITA COST OF MAINTENANCE.						Farm Products.	Maintenance, Including Farm Products.
	Enrolled.	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.		
October 31, 1891.	241	199.2	\$39,980.30		\$39,980.30	\$18.25	\$36.78	\$50.72	\$53.81	\$41.14	\$200.70		
October 31, 1892.	191	185	40,000.00		40,000.00	17.53	31.16	61.96	68.66	36.91	216.22		
October 31, 1893.	202	192.98	33,093.69		33,093.69	13.12	2.51	65.72	53.86	38.27	171.48		
October 31, 1894.	260	204	45,000.00		45,000.00	21.39	27.12	65.97	58.80	47.22	220.59		
October 31, 1895.	305	206.5	45,000.00		45,000.00	20.80	35.50	64.32	55.04	42.25	217.91		
October 31, 1896.	332	230.5	40,499.00	\$5,000.00	45,499.00	14.66	3.94	62.25	54.46	40.39	175.70		
October 31, 1897.	312	251.5	40,499.91		40,499.91	18.52	17.81	53.25	36.79	34.66	161.03		
October 31, 1898.	319	250.92	39,531.44		39,531.44	15.74	9.76	49.75	45.97	36.32	157.54		
October 31, 1899.	309	236.3	40,498.00	1,159.10	41,657.10	17.92	10.40	53.84	51.21	38.02	171.39		
October 31, 1900.	304	234.67	40,353.13		40,353.13	14.38	13.85	59.53	44.30	39.90	171.96	\$2.90	\$174.86
October 31, 1901.	190	212.75	37,701.87	50.00	37,751.87	12.44	8.30	64.90	50.36	41.21	177.21	2.44	179.65
October 31, 1902.	227	210.44	40,308.84	150.00	40,458.84	9.73	15.26	65.09	63.30	38.17	191.55	3.62	195.17
October 31, 1903.	253	239.23	39,803.80		40,979.10	12.54	12.83	60.13	48.70	32.18	166.38	1.67	168.05
October 31, 1904.	255	256.09	40,183.85	1,175.30	40,183.85	9.81	9.24	55.07	52.49	30.30	156.91	1.63	158.54
October 31, 1905.	292	266.01	42,546.32	16.00	42,562.32	12.09	15.22	56.36	47.21	29.06	159.94	1.46	161.40
October 31, 1906.	312	309.10	48,213.70		48,213.70	12.11	8.41	54.52	46.75	34.19	155.98	1.58	157.56
October 31, 1907.	261	298.39	57,177.95	27,454.01	84,631.96	14.93	9.45	71.36	58.83	37.05	191.62	2.62	194.24

*Owing to a change in the date of the fiscal year, these figures are for 11 months only.

†Includes the expenditures of both the Girls' School and the Woman's Prison, although the two institutions were separated July 16, 1907.

INDIANA GIRLS' SCHOOL, CLERMONT.

YEAR ENDING.	POPULATION.		EXPENDITURES.		PER CAPITA COST OF MAINTENANCE.						Farm Products.	Maintenance, Including Farm Products.
	Enrolled	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depots.	Gross Maintenance.		
September 30, 1908	235	218.38	\$55,819.14	\$51,792.18	\$107,611.32	\$22.25	\$3.68	\$100.96	\$90.65	\$38.07	\$255.61	\$261.61
September 30, 1909	321	286.43	\$6,849.49	22,856.84	81,706.33	16.45	11.67	77.75	64.78	34.81	205.46	216.34
September 30, 1910	326	319.65	77,218.52	26,905.67	103,824.19	14.33	33.15	74.67	40.78	38.02	241.57	252.38
September 30, 1911	299	309.76	72,286.26		72,286.26	14.36	6.69	74.97	93.71	43.63	233.36	247.53

INDIANA WOMAN'S PRISON, INDIANAPOLIS.

YEAR ENDING.	POPULATION.		EXPENDITURES.			PER CAPITA COST OF MAINTENANCE.					Farm Products.	Maintenance, Including Farm Products.
	Enrolled	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Dep'ts.	Gross Maintenance.		
September 30, 1908	91	68.41	\$23,558.01	\$37,520.00	\$61,078.01	\$16.08	\$48.76	\$140.66	\$85.00	\$43.86	\$344.36	\$853.14
September 30, 1909	118	86.52	26,516.80		26,516.80	9.88	37.03	119.37	94.91	45.29	306.48	313.06
September 30, 1910	116	110.51	27,990.88		27,990.88	12.14	24.82	87.81	75.97	47.94	253.28	256.25
September 30, 1911	126	118.99	29,693.64	1,800.00	31,493.64	3.41	26.43	88.41	87.86	42.68	248.79	252.22

INDIANA BOYS' SCHOOL, PLAINFIELD.

YEAR ENDING.	POPULATION.		EXPENDITURES.			PER CAPITA COST OF MAINTENANCE.						Farm Products.	Maintenance, Including Farm Products.
	Enrolled	Daily Average.	Maintenance.	Permanent Improvements.	Total.	Clothing.	Repairs.	Administration.	Office, Domestic and Outdoor Depts.	Subsistence.	Gross Maintenance.		
October 31, 1891	541	541	\$66,000 00	\$4,052 82	\$70,052 82	\$11 04	\$3 58	\$39 78	\$32 75	\$34 84	\$121 99		
October 31, 1892	478	467	70,200 62	3,064 58	73,265 20	14 64	8 02	39 33	47 53	40 80	150 32		
October 31, 1893	476	480 83	69,342 87	6,325 52	75,668 39	12 62	13 73	39 79	45 11	32 97	144 22		
October 31, 1894	558	512	63,089 32	5,265 56	68,354 88	10 80	6 55	38 26	39 58	28 03	123 22		
October 31, 1895	535	556	65,000 00		65,000 00	10 81	6 70	35 60	35 39	28 40	116 90		
October 31, 1896	508	505 6	58,500 00		58,500 00	11 33	10 87	37 79	32 79	22 92	115 70		
October 31, 1897	593	539 4	58,500 00	4,000 00	62,500 00	11 03	6 46	38 40	28 04	25 06	108 45		
October 31, 1898	616	551 02	58,500 00		58,500 00	11 06	4 64	35 08	28 53	26 89	106 17		
October 31, 1899	562	512 91	58,500 00		58,500 00	13 06	3 84	38 76	32 46	25 94	114 06		
October 31, 1900	550	522 5	60,000 00	3,374 91	63,374 91	13 29	5 74	39 57	30 81	25 42	114 83	\$12 95	\$127 78
October 31, 1901	521	555 16	63,000 00		63,000 00	13 00	5 40	37 75	30 40	26 93	113 48	20 25	133 73
October 31, 1902	531	515 83	63,000 00	11,331 94	74,331 94	14 32	5 82	39 65	34 14	28 20	122 13	22 73	144 86
October 31, 1903	576	561 41	66,500 00	9,688 54	76,188 54	12 36	4 82	40 65	38 80	21 82	118 45	20 26	138 71
October 31, 1904	575	569 12	73,000 00	14,584 39	87,584 39	13 01	8 79	39 63	43 92	22 92	128 27	21 82	150 00
October 31, 1905	574	585	78,000 00	29,391 78	107,391 78	15 50	8 55	41 59	45 05	22 64	133 33	25 65	158 98
October 31, 1906	568	580 73	84,163 18	4,514 13	88,677 31	17 54	12 05	43 82	50 70	20 82	144 93	26 41	171 34
September 31, 1907	545	563 98	80,666 36		80,666 36	16 20	11 78	40 45	54 45	20 14	143 03	23 45	166 48
September 31, 1908	544	566 86	92,312 71	20,810 72	113,123 43	20 62	12 35	49 85	55 24	24 78	162 85	28 20	191 05
September 31, 1909	690	631 57	107,995 31	6,897 63	114,892 94	21 82	11 08	47 29	63 19	27 62	171 00	29 48	193 48
September 31, 1910	666	681 81	120,284 74	6,449 69	126,734 43	21 38	10 27	44 13	68 59	32 05	176 42	24 51	200 43
September 31, 1911	602	640 15	114,697 15	18,588 72	132,685 87	20 84	10 93	50 13	67 69	28 64	178 23	31 57	209 80

*Owing to a change in the date of the fiscal year, these figures are for 11 months only.

THE INDETERMINATE SENTENCE AND PAROLE LAWS.

Back of the indeterminate sentence and parole laws of Indiana there is now a history of fourteen years' operation. The passage of these measures by the General Assembly of 1897 and the establishment of a separate institution for young men offenders were a somewhat late but effectual step in furtherance of the reformatory treatment of criminals contemplated by the Constitution of 1816. If any argument were necessary to prove the value of these laws as a substitute for the vindictive methods of other days, the statistics which follow would be sufficient.

Up to September 30, 1911, the Reformatory, the State Prison and the Woman's Prison had granted conditional releases to 6,291 of their prisoners. Sooner or later the terms of all these prisoners would have expired and they would have left the institution free men and women; but going out as they did under the parole law they remained under the control of the State until they gave satisfactory proof of their reformation and their ability to maintain themselves. By paroling them and exercising over them such supervision as was necessary until they became rehabilitated, the State saved to useful citizenship many who might have continued in criminal ways and become a menace to the public welfare.

The reports to the Board of State Charities indicate that of the 6,291 paroled prisoners, 3,596 completed the parole period (never less than a year) to the satisfaction of those in charge and were released from supervision. An additional 442 were discharged because the maximum limit of their sentence was reached during the parole period. At the close of the fiscal year, 499 were under supervision and reporting to the authorities and 115 had died. These various classes make a total of 4,652. The remaining 1,629 are the failures, those who are known to have broken faith. They constitute 26.05 per cent. of the whole number paroled. Every effort is made by the authorities to apprehend these delinquents. Up to September 30 they had returned 894 to the institutions, but 745 were still at large.

The appended table sets forth in separate columns the results of these laws in the three institutions to which they are applicable.

The Reformatory up to the close of the year had paroled 3,805 young men and its unsatisfactory cases numbered 1,009, or 26.51 per cent. Of the 2,304 men paroled from the State Prison, 579 or 25.13 per cent. proved delinquent. The Woman's Prison paroled 182 women, of whom 51 or 28.02 per cent. proved delinquent.

The records show that the system is as great a success financially as otherwise. The maintenance of these men and women in prison a single year would have cost a considerable sum. Only a small part of what the State saved by releasing them was required for their supervision while on parole. The prisoners themselves during the time they were under supervision reported earnings amounting to \$1,716,319.73 and expenses amounting to \$1,417,390.76, these reports being certified by their employers. These ex-prisoners therefore, not only were self-sustaining, but had on hand or due them when they ceased reporting a total of \$298,928.97.

OPERATIONS OF PAROLE LAW—APRIL 1, 1897, TO SEPTEMBER 30, 1911.

	Reformatory, Jeffersonville.	State Prison, Michigan City.	Woman's Prison, Indianapolis.	Total.
Served parole and given final discharge.....	2,168	1,339	89	3,596
Sentence expired during parole period.....	288	132	22	442
Returned for violation of parole.....	486	382	26	894
Delinquent and at large.....	523	197	25	745
Died.....	72	40	3	115
Reporting.....	268	214	17	499
Total paroled.....	3,805	2,304	182	6,291
Percentage of unsatisfactory cases.....	26.51	25.13	28.02	26.05
Earnings of paroled prisoners.....	\$1,073,835 51	\$640,522 86	\$1,961 36	\$1,716,319 73
Expenses.....	927,846 99	488,575 25	968 52	1,417,390 76
Savings.....	\$145,988 52	\$151,947 61	\$992 84	\$298,928 97

THE EPILEPTICS.

The latest reports indicate that 846 inmates of public institutions in Indiana are afflicted with epilepsy: 308 in the State hospitals for the insane, 236 in the School for Feeble-Minded Youth, 188 in county poor asylums and 114 in the Village for Epileptics. There are still others in county jails and orphans' homes, but the number is small. In all probability there are as many epileptics in their own homes as are reported from public institutions. Of those concerning whom we have definite knowledge, 443 are males and 403 females. Three hundred and forty, or 40 per cent., have been adjudged insane; 389, or 46 per cent., are classed as feeble-minded; and 117, or 14 per cent., are reported as having no marked mental deficiency. Forty are under sixteen years of age, 25 boys and 15 girls. Those whose ages are between sixteen and forty-five number 577 (292 men and 285 women). The remaining 229, including 126 men and 103 women, are forty-five years of age or more.

There are now 33 fewer epileptics in public institutions than were reported a year ago. One reason for this is that the School for Feeble-Minded Youth, at Fort Wayne, no longer receives this class. On September 30, last year, it had 264 epileptic inmates; on the same day this year, 236. The State hospitals for the insane report nine more than were present the same day last year and the county asylums twelve less. The Village at New Castle can care for 116 patients and had that many enrolled at the close of the fiscal year. Two of these were temporarily absent.

THE INSANE.

On June 8, 1911, Governor Marshall issued an order redistricting the State for insane hospital purposes. From the Central district Vigo, Clay, Owen and Morgan counties were deducted and Grant, Madison and White were added. From the Northern district White, Lagrange, Steuben, Noble, Dekalb and Huntington were deducted. From the Eastern district Grant, Madison, Rush and Fayette were deducted and Lagrange, Steuben, Noble, Dekalb and Huntington were added. Harrison County was deducted from the Southern district. To the Southeastern district the following counties were added: Harrison, Rush, Fayette, Vigo, Clay, Owen and Morgan.

Under the new arrangement there are twenty-two counties in the Central district, with a population of 806,942; 16 in the Northern district, with a population of 508,474; 16 in the Eastern district, with a population of 461,429; 15 in the Southern district, with a population of 407,378; 23 in the Southeastern district, with a population of 516,153. As now constituted, each of the five districts has within its borders one of the five cities in the State which have a population of more than 50,000.

The reports to this office from the State hospitals, the county poor asylums and jails, and the county clerks, indicate a total of 5,629 insane persons in the State at the close of the year, an average of one insane person to every 480 inhabitants. The greatest number of insane persons in proportion to population is found in the counties of the Central district, one in 440. The other extreme is found in the Southeastern district, one in 590. The Northern and the Southern districts have the same ratio, one in 460. In the Eastern district, the ratio is one in 496.

Were it advisable to keep every bed occupied, the five hospitals as now equipped could care for 94 per cent. of the insane in the State. While this is the average for the five hospitals, there is considerable variation among them individually. The Northern Hospital, at Logansport, is least able to meet the demands of its district. With a capacity of 950, it can receive but 85.9 per cent. of the insane entitled to its care. Next in order come the Central Hospital, at Indianapolis, with provision for 87.5 per cent., the Eastern at Richmond, 89.3 per cent., and the Southern, at Evansville, 91.4 per cent. The capacity of these four hospitals falls

short of the demand for room, but the Southeastern Hospital can care for all the insane in its district and 25.7 per cent. more than the number reported. In this connection, however, it should be borne in mind that a hospital must be prepared to receive emergency cases and that some allowance must be made for the proper classification of patients. With the necessary vacancies provided for, the above percentages would be slightly lowered.

The table which accompanies this chapter shows the total number of registered insane at the close of the fiscal year, classified by districts and institutions. A similar table was printed in the report for 1910. Compared with that year there is an increase of 136 in the number of insane reported. There are 264 more enrolled in the State hospitals, 80 fewer in the county jails and poor asylums, and the clerks report a reduction of 48 in the number in their own homes or with friends.

THE INSANE.

DISTRICTS.	Hospital Capacity.	IN PUBLIC INSTITUTIONS.				NOT IN PUBLIC INSTITUTIONS.			Aggregate
		State Hospitals.	County Poor Asylums.	County Jails.	Total.	On Furlough from State Hospitals.	At Home or with Friends, Reported by County Clerks.	Total.	
Central.....	1,605	1,433	247	5	1,685	141	7	148	1,833
Northern.....	959	936	32	5	973	124	8	132	1,105
Eastern.....	831	814	69	9	892	13	25	38	1,130
Southern.....	810	761	49	7	817	16	23	69	886
Southeastern.....	1,100	711	72	10	793	46	36	82	875
Total.....	5,246	4,655	469	36	5,160	370	99	469	5,629

*Of this number 174 were in Marion County Asylum for Incurable Insane.

STATE'S POPULATION AND INSANE BY DISTRICTS.

DISTRICT.	Number of Counties.	POPULATION, CENSUS OF 1910.			Number of Insane.	Ratio of Insane to Population.
		Total.	Per Cent Urban.*	Per Cent Rural.		
Central.....	22	806,942	50	50	1,833	1 to 440
Northern.....	16	508,174	49	51	1,105	1 to 460
Eastern.....	16	461,429	39	61	930	1 to 496
Southern.....	15	477,878	32	68	886	1 to 540
Southeastern.....	23	516,153	35	65	875	1 to 590
Total.....	92	2,760,576	42	58	5,629	1 to 480

*The Census Bureau defines urban population as that residing in cities and other incorporated places of 2,500 inhabitants or more, and rural population as that residing outside of such incorporated places.

OUTDOOR RELIEF IN 1910.

The township fiscal year is identical with the calendar year. The latest statistics of township poor relief available at the time of this report are for the year ending December 31, 1910.

During that year the 1,017 township trustees in Indiana, acting in their ex-officio capacity as overseers of the poor, gave \$266,181.16 aid to poor persons not in public institutions. This sum includes no administrative expenses. In 50 townships no aid was given, 23 of the number having made the same record in 1909; in 440 townships the aid given was less than \$100; in 402, between \$100 and \$500; in 78, from \$500 to \$1,000, and in 47, over \$1,000.

The total amount of relief was shared by 43,227 persons, of whom 20,544 were men and boys and 22,683 were women and girls; 20,528 were children 16 years of age and under, 17,542 were from 17 to 60 years, 4,857 were over 60 years, and of 300 the age was not reported. The white persons aided numbered 40,372; colored 2,855. Classified by nativity, 37,607 were Americans, 573 Irish, 1,427 German, and the remaining 3,620 were unclassified. The proportions were as follows:

Sex.—Males, 47.5 per cent.; females, 52.5 per cent.

Age.—Children, 47.5 per cent.; 17 to 60 years, 40.6 per cent.; over 60 years, 11.2 per cent.; unknown, .7 per cent.

Color.—White, 93.4 per cent.; colored, 6.6 per cent.

Nativity.—American, 87 per cent.; Irish, 1.3 per cent.; German, 3.3 per cent.; unclassified, 8.4 per cent.

In the list of reasons assigned for asking help from public funds, "sickness and burials" leads, this reason having been given by 8,436 families or individuals. "Old age" and "widowhood or non-support" are about equal, 1,793 and 1,764 respectively. Next comes "blind, deaf or crippled," 799, then "lack of employment," 792. "Insanity or idiocy" has the lowest number, 122. Transportation was given to 1,838 families or individuals.

Under the heading "Occupation," the laborers number 8,809; housekeepers, 1,294; skilled trades, 680; farmers, 243; clerks, agents and office employes, 65, and professions, 49. When a family is aided the occupation of only the head of the family is given.

These figures are summarized from the reports of the township trustees, a report for each quarter of the year having been received from each of the 1,017 townships. It is interesting to find, on comparing them with the report for the preceding year, a reduction of \$13,786.15 in the amount of assistance given, and of 11,291 in the number of persons who shared it. In 23 townships no aid was given either this year or in 1909; in five, exactly the same amount was given both years; in 431 there was an increase, in some instances but a few cents; in 558 the trustees gave less aid. Taken by counties, there was a decrease in 61 and an increase in 31.

Summary of Statistics for 1909 and 1910.

Total number of—	1909.	1910.
Persons aided	54,518	43,227
Males aided	26,256	20,544
Females aided	28,262	22,683
Times aid was given	79,841	70,165
Children 16 years and under	26,121	20,528
Males 17 to 20 years, inclusive	928	636
Males 21 to 60, inclusive	9,392	7,166
Females 17 to 60, inclusive	12,309	9,740
Persons 61 and over	5,543	4,857
Males 21 and over	12,318	9,733
Families aided	11,777	9,180
White persons aided	50,788	40,372
Colored persons aided	3,730	2,855
Nationality—		
American	42,022	37,607
Irish	926	573
German	2,169	1,427
Principal Reasons for Giving Relief—		
Lack of employment	1,602	792
Sickness and burials	9,562	8,436
Old age	1,768	1,793
Widowhood and nonsupport	1,362	1,764
Insanity and idiocy	126	122
Blind, deaf or crippled	955	799
Number given transportation	1,014	1,838
Occupation of Those Aided—		
Farmers	328	243
Housekeepers	1,590	1,294
Skilled trades	979	680
Clerks, agents, office employes	59	65
Professions	71	49
Laborers	11,614	8,809
Cost of Relief—		
Total value of aid given	\$279,967 31	\$266,181 16
Average value of aid to each person helped...	5 13	6 16

Of greater value, perhaps, than a comparison of one year with the preceding twelve months is one which takes into consideration a series of years. Fifteen years ago, as a result of a law enacted by the General Assembly of 1895, the Board of State Charities began receiving from each township in the State a quarterly report of all aid to the poor from public funds. Prior to that year an annual report from the county auditors furnished all the facts available concerning this phase of public expense. It is possible at this time to study the figures for the past twenty years, the first five under county supervision, the last fifteen under State supervision. It may be well to say here that "State supervision" means merely that the reports are made to the Board of State Charities, which studies them, compiles statistics, compares counties and townships of similar condition, advises with local officials and publishes the results of its observations.

For convenience, let us divide the past twenty years into five-year periods. For the first period, 1891-1895, the figures are taken from the county auditors' reports. They show the single item of the amount paid out for poor relief. Beginning with \$560,012.35 in 1891, this sum had increased five years later to \$630,168.79. The average for the five years was \$573,850.95 annually—more than a half-million dollars.

The second five-year period witnessed a remarkable change. With the passage of the law of 1895, requiring detailed records, and the publicity given to the statistics collected from the reports made in accordance with that law, there came about a more careful administration of the poor funds. The average annual expense of \$573,850.95, above mentioned, dropped to \$312,514.46, a decrease of 45 per cent. Within these two five-year periods, the two extremes in outdoor poor relief were reached: \$630,168.79 in 1895 and \$209,956.22 in 1900, a difference of 66.6 per cent. The annual average for the third five-year period (1901-1905) was \$256,226.26, and for the fourth (1905-1910), \$259,912.41.

In 1891, when Indiana's population numbered 2,192,404, township poor relief amounted to \$560,012.35, an average of 25.5 cents per capita. The census of 1910 gives the State's population as 2,700,876. At the same per capita rate as obtained in 1891, township poor relief in 1910 would have amounted to \$688,723.38 instead of \$266,181.16. This means a saving of \$422,542.22. Since 1891 Indiana's population has increased 23.1 per cent.; township poor relief has decreased 52.4 per cent.

The following tabulation shows the effect of the present poor relief law on taxation. The enactment of 1897 requires the several townships to return to the county treasury whatever has been advanced therefrom for outdoor relief. The levy is made in September of each year, by the trustee, or if he fails to do so, by the county auditor. It is collected as all other taxes are collected. The county treasury is then reimbursed for the money advanced to the townships the preceding year, and whatever balance remains must, according to law, be reported to the trustee concerned, and taken into account in making the levy for the ensuing year. As will be noted from the figures given, 64 townships made no levy in 1898, in 515 the levy was under five cents on each \$100, and in 435 it was five cents or more. In the early years of the law it was not unusual to find many levies from twenty to thirty cents. In 1910 the figures of 1898 were practically reversed: 361 townships made no levy, in 582 it was less than five cents, in 74 it was five cents or more, the highest being fifteen cents, in Salt Creek Township, Monroe County, and Rutherford Township, Martin County.

Year.	No Levy.	Under five cents.	Five cents and over.	Number of Townships.
1898.....	64	515	435	1,014
1899.....	50	607	357	1,014
1900.....	146	644	226	1,016
1901.....	154	620	240	1,014
1902.....	181	611	223	1,015
1903.....	233	617	165	1,015
1904.....	224	649	144	1,017
1905.....	289	581	146	1,016
1906.....	317	593	106	1,016
1907.....	335	603	78	1,016
1908.....	348	580	88	1,016
1909.....	276	634	107	1,017
1910.....	361	582	74	1,017

The saving of money, however important that may be, is of less value than the reduction in the number of persons depending either partially or wholly upon public support. It is not known how many persons received the great sums given prior to 1896, but the reports of that year showed a total of 71,414, and the next year, when more complete reports were received, the total amounted to 82,235. The reports of 1910 showed a total of 43,227 recipients of public help. The ratio of persons helped to total population was, in 1897, one in every 31; in 1910, one in every 62.

REPORT OF THE SECRETARY.

Ladies and Gentlemen—While much of my work, as the board's executive officer, is inseparably connected with that of the several standing committees, certain other duties fall to me in the conduct of the office and in connection with the local charities.

During the year a steadily increasing volume of correspondence has been attended to. The publications of the board have been prepared and distributed. The annual report for 1910, containing our recommendations for needed legislation, was issued while the Legislature was in session and each member was supplied with a copy. The Prison Sunday pamphlet was printed this year by the Indiana Reformatory class in printing. Following our announcement that it was ready for distribution, 365 ministers requested copies and 43 other persons in different parts of the State sent in lists of clergymen or asked for packages of the pamphlet that they might distribute it. Altogether nearly one thousand copies were sent out. Our registration now includes 90,565 records, representing 153 institutions.

My official visits since the last report number 108. Seventy-five of these were in Indiana, 33 in other States. The Indiana visits include 43 to State institutions, most of which were made with one or more members of the board; 11 were to county and 4 to private institutions; 17 were of a miscellaneous character.

From the first it has been the board's plan to have each county institution inspected at least once a year. It has not been possible for the secretary alone to accomplish this with his other work, but during the past year, with our increased appropriation and some reorganization of the force of employes every jail, poor asylum and orphans' home in Indiana has been visited by a representative of the board. Thorough inspections and full reports have been made and local authorities have been notified promptly of needed repairs and improvements.

We have investigated a number of minor complaints, and have usually found them groundless or easily adjusted.

The past year has witnessed many changes for the better in county poor asylums, either in physical condition, equipment or administration. New buildings have been completed and occupied

in Carroll, Newton and Clay counties and extensive improvements have been made elsewhere. Plans for new structures in Fayette, Lake and Spencer counties have been examined and approved. Special mention is due the well equipped, well kept and in the main intelligently administered asylums in Adams, Allen, St. Joseph, Elkhart, Kosciusko, Porter, Madison, Clark, Benton, Orange, Dubois, Jay, Hendricks, White, Pike, and Vanderburgh counties. Others have many excellent features. If all the asylums in the State were like these, the general average would be above criticism. It is lowered, unfortunately, in other counties by bad buildings, poor equipment, inefficient administration and apparently a total lack of concern on the part of officials and the public. Among the worst asylums in the State are those in Ripley, Harrison, Lawrence, Martin, Switzerland and Jefferson counties. Brown, Daviess, Huntington, Shelby, Vigo and Whitley counties need new buildings and others should make extensive repairs.

One of the saddest things in connection with county asylums is the lack of proper care of the sick. Frequently the only attention they receive aside from the physician's occasional visit, is that afforded by fellow inmates, themselves barely able to be up and often ignorant of the simplest rules of nursing. Nearly every asylum in the State has one or more insane or epileptic inmates, but only a few have special provision for them; none is prepared to give them the treatment they need and the surroundings tend to increase the affliction of these pitiable unfortunates. In some asylums we find the meals restricted to an almost unvaried bill of fare, the monotony of which must in time tell upon the health of the inmates. At the same time quantities of farm and garden produce are raised and sold. There are asylums which have no day rooms. Feeble old men and women spend their waking hours in long, cheerless inner corridors, when large porches, arranged for both winter and summer use, could be built at comparatively little expense, soon paying for themselves in the improved health and greater contentment of the asylum residents. In one county and another we have found inside rooms used as bedrooms; vacant rooms next to overcrowded ones; inmates quartered in dingy, gloomy basements, with large, airy rooms in the upper story unused; helpless bedridden men and women spending the long winter months in unheated rooms; modern sanitary equipment lacking necessary connections and consequently useless; inadequate bathing facilities, leaky roofs, falling plaster, defective sewers; little

or nothing to prevent communication between the sexes: superintendents and matrons overburdened with work and the inmates inevitably neglected. All these conditions, and the list might be lengthened, are preventable. The responsibility for them rests upon the commissioners and the council, who are vested with full power and authority to make proper provision for their poor. Those superintendents and matrons who, notwithstanding their discouraging surroundings, are striving to make their charges comfortable and happy, deserve support and commendation.

Such improvement as is to be reported in county jails is in physical condition only. In our system, which makes even the best jail a failure so far as its real purpose is concerned, there has been no change whatever. The general impression about these institutions is far from favorable. Many of them are well-planned and properly administered. In some counties we find careful officers handicapped by inadequate facilities; in others, good buildings and modern appliances suffering from neglect. In none of them is there found any semblance to modern ideas of the treatment of short-term offenders. Not until the State assumes control of the men and women convicted of breaking its laws and the use of the jails is restricted to the detention of the accused can we hope for any substantial improvement. It should be made impossible also for the sheriff to find in the boarding of prisoners any source of personal profit. The jail should be maintained as are other public institutions. It will require legislation to change the system. Meanwhile the county commissioners should see that the jails are in good condition and properly administered.

The best jails in the State are those in Cass, Elkhart, Grant, Greene, Jay, Knox, Lake, Laporte, Miami, St. Joseph, Vanderburgh, Vigo and Warren counties. The worst are those located at Jeffersonville, Greensburg, Princeton and Vernon. They should be replaced by new jails. New buildings or very extensive remodeling are needed also in Allen, Brown, Clinton, Jefferson, Madison, Tippecanoe and White counties. Very unsatisfactory conditions exist in still other jails, particularly those in Bartholomew, Carroll, Crawford, Marshall, Monroe, Ohio, Putnam, Scott and Shelby counties. There are no jails in Newton, Owen and Pulaski counties and that in Brown County has been condemned. The prisoners of these four counties are cared for elsewhere. The new jail in Greene County was occupied early in the year. It is a well constructed building and with proper administration can care

for all classes of prisoners. Extensive improvements have been made in the jails at Huntington and Rockville. The Henry County authorities have established a workhouse in connection with the jail at New Castle.

A brief report concerning each poor asylum and jail is given elsewhere in this report, together with the usual statistics concerning their inmates. Attention is directed also to the reports of W. S. Reynolds, State agent, and Miss S. Ethel Clark, inspector, for information concerning institutions which care for children and for maternity cases.

The Children's Home Society, an organization long engaged in Indiana in work for dependent children, is creating an unfavorable impression because of its business methods, the lack of harmony among its officials and the unsatisfactory conditions in its receiving home at Hadley. For these reasons the Board of State Charities at its meeting July 25, 1911, instructed the secretary to notify the society that unless it could show a proper use of its funds and that its members were working harmoniously for the purpose for which the society was organized, its license would be withdrawn.*

During the year we have given considerable attention to the methods pursued in the distribution of outdoor relief. We have found trustees in adjoining counties following entirely different systems, and in many officials a lack of knowledge, sometimes of the law, sometimes of the proper practice. I believe the visits will result in good and that the data collected will prove helpful in studying conditions of pauperism.

Following your instructions, I went to Boston in June to attend the National Conference on Truant, Backward and Delinquent Children and the National Conference of Charities and Correction. Both meetings were very successful. This year's session of the American Prison Association did not take place until after the close of the fiscal year. The Juvenile Court Conference of the Middle Western States held a three-day session in Indianapolis, beginning November 9th. The program was interesting and helpful. The nineteenth annual State Conference of Charities and Correction was held at Marion just prior to the close of the last fiscal year, and the twentieth will convene in Indianapolis October 28th next. Therefore no State conference occurred within the past twelve months. Prof. U. G. Weatherly, of Indiana University,

*The license was revoked November 6, 1911.

will preside over the coming meeting in Indianapolis. The program is practically completed, and the local committees under the efficient leadership of Mr. William Fortune are making all necessary arrangements for the conference. A new feature this year will be an exhibit of the work of State and local charitable and correctional institutions and of private philanthropies. Governor Marshall has kindly consented to the use of the State House corridors for this display and of the legislative chambers for the "round tables." Much of the preliminary work of the conference falls upon our office, and we look upon it as one of our most valued opportunities for service.

It has been my privilege during the past year to visit a number of institutions in other States. In January three days were spent in Texas, where by invitation I addressed the State Conference of Charities and Correction on "The Work of a Board of State Charities," and by resolution of the Legislature I spoke before that body on "The Indeterminate Sentence and Parole Laws." The people of Texas are deeply interested in both these subjects. Word has since been received that the Legislature at this session passed a suspended sentence law and a parole law.

In connection with this trip, I visited the State School for the Blind. The institution shows the effect of the political system under which it is conducted. It has had four or five superintendents in as many years. At the State Lunatic Asylum I was especially interested in some new cottages and a recently erected pavilion for tubercular patients. The superintendent of this institution is advocating colony care of the insane. While he has an extensive dairy, a piggery and a garden, he says that they do not afford enough employment for the best welfare of the patients. I visited also the old poor asylum at Austin.

On April 1st I attended by invitation the annual meeting of the New Jersey State Charities Aid Association and spoke on the question of "State Supervision of Public Charities." This meeting immediately preceded the annual session of the State Conference of Charities and Correction, which I also attended. There I had the pleasure of meeting the Governor of New Jersey, who expressed much interest in our system of institutional organization and administration. On this occasion I visited the New Jersey State Prison at Trenton and the Training School for Feeble-Minded Children at Vineland. The latter institution is performing a valuable service to the State in studying scientifically the

children that come to it. Its officers take a broad view of the problem of feeble-mindedness. The school has several agents studying the families of the State, as a result of which it hopes to learn the number of defective children, how many can with safety be left to special teachers in the public schools and how many need and should have attention in a State school or custodial care in a State asylum. Mr. Johnstone, the superintendent of this institution, was principal of schools of the Indiana School for Feeble-Minded Youth some years ago.

The Legislature of New Jersey enacted this year a poor relief law modeled after that of Indiana, and we have been asked for a set of the blanks in use here.

On the same trip east I visited the Pennsylvania Institution for the Deaf and the Chester County (Pennsylvania) Hospital for the Insane, in both of which I found much of interest. The latter institution is located near the county poor asylum, on a 600-acre farm. It receives all the insane of Chester County. The superintendent believes firmly in keeping the patients occupied, and at the time of this visit numbers of them were busily engaged on the lawns, the farm, garden, etc.

At the time of the National Conference of Charities and Correction several eastern institutions were visited and much valuable information was gathered concerning the care of the insane and feeble-minded, outdoor employment for all classes of State wards and the newer methods in the handling of short-term offenders. In addition to a number of Massachusetts institutions, I visited the State Prison at Wethersfield and the new Reformatory at Cheshire, Connecticut, also the new District of Columbia Workhouse at Occoquan, Va. These three institutions are in charge of former Indiana men, Mr. W. A. Garner, Mr. Albert Garvin and Mr. W. H. Whittaker.

In addition to the addresses made in New Jersey and Texas, above mentioned, I took part by invitation in the program of the Pennsylvania State Conference of Charities and Correction at Williamsport, October 11, and on Prison Sunday, October 30, made three addresses at Wabash, Indiana. Lectures were given during the year at DePauw University, Hanover College and the Chicago School of Civics and Philanthropy, and I had the pleasure also of speaking on different phases of the work of this board to a number of other audiences in Indiana. Such opportunities to present the work of the State's philanthropies have been wel-

comed, and it is a source of regret that the pressure of other duties made it impossible to accept all the invitations extended.

We have been instrumental in securing the deportation of a foreigner named Illia Miljivich, a Croatian, who was sent to the Indianapolis City Hospital last August. After considerable correspondence and numerous interviews, the man was taken away by a Government officer and returned to his own country. He was 38 years of age and totally blind and would have been a public charge all his life.

The biennial session of the Legislature, held this year, resulted in the proposal of a number of reactionary measures. Fortunately most of them were defeated and several advance laws were passed. As usual, we found frequent opportunity to assist members of the assembly who sought information or advice concerning the charities and corrections of this and other States.

I was invited by the committee in charge of the specifications for the new Indianapolis City Hospital to attend a meeting at which the proposed plans were to be considered. It was impossible to accept the invitation but a letter was written the chairman of the committee, setting forth the views of our board as to the need for a special ward for children and a psychopathic department for the care of incipient mental diseases. It is gratifying to know that those having in charge the erection of the new Robert W. Long Hospital contemplate including such wards in their plans.

We have had a number of visitors from other States during the year. On December 31st we had the pleasure of a visit from Dr. Frank A. Fetter, formerly of Indiana University and now a member of the New York State Board of Charities. Dr. Fetter has always been deeply interested in the work of our board and his visit was for the purpose of refreshing his memory on certain phases of it, particularly the administration of the poor relief laws. A legislative committee from Ohio, interested in the question of a reformatory for women in that State, came in January to our office and later visited the Woman's Prison. Mr. H. H. Shirer, secretary of the Ohio Board of State Charities, visited our office this summer. He is interested in our laws concerning children, our office records, the work of the new Girls' School and the question of a reformatory prison for women. Mr. Allan D. Conover, late president of the Wisconsin State Board of Control, came to examine institution plans and to discuss the workhouse question. Mr. R. J. McBryde, Jr., of Louisville, who is interested

in securing for Kentucky a uniform institution law and a Board of State Charities law, obtained copies of each of these statutes

As a member ex-officio of the State Truancy Board, I have carried on considerable correspondence with local authorities and have received the usual annual reports of truant officers.

Our department has been moved from the second to the third floor of the State House. The main office is now Room 93.

Our force of clerks and agents at the close of the year numbered fourteen. Mr. W. S. Reynolds, the State agent, has divided his time between the work for dependent children and that of inspecting county institutions. Mr. J. A. Brown has directed the field work of the agents: Miss Mary Carmichael, Miss Mabel C. Atwood, Miss Nell W. Dunkle, Miss Eleanor Foster and Mrs. A. M. Storey. The work of the License Department has been carried on by Miss S. Ethel Clark. She has also inspected most of the county poor asylums and jails in the State during the year. Misses Laura Greely, Moffett Richards, Grace P. Hargitt, Gertrude McQuat and Eleanor Hermann and Mrs. Carrie V. Marshall performed the clerical work of the office.

Respectfully submitted,

AMOS W. BUTLER,
Secretary.

COMPULSORY EDUCATION.

Each county in the State is permitted under the Compulsory School Attendance law to have a truant officer. The law provides also that a city having a school enumeration of 5,000 or more children or two or more cities and towns in any county having a combined school enumeration of 5,000 or more, may, in the discretion of the county board of education, constitute a separate district for the purposes of the act. One truant officer is allowed to cities having a school enumeration of 10,000 or less. Larger cities are entitled to additional truant officers, the number depending upon their population. No city can have more than five. County officers are appointed by the county board of education, city officers by the board of school trustees or the board of school commissioners, as the case may be. The administration of the law is under the supervision of the State Board of Truancy, composed of three members: a representative of the State Board of Education, the secretary of the Board of State Charities and the local county or city superintendent of schools.

During the school year 1910-11, Amos W. Butler, secretary of the Board of State Charities, acted as president of the State Board of Truancy. He carried on considerable correspondence with local officers, and at the close of the year received their reports. There were 110 such officials. Incomplete reports were received from Harrison, Henry and Tippecanoe counties and none at all from Pike and Scott. Ohio County did not appoint a truant officer.

The attached tables give a summary of the reports received and show the work done in each county.

At an average expense of \$2 18 each, 22,919 children who were out of school were required to attend. The public schools received 21,930 and private schools 989 of these truants. In some instances nothing more was needed than an official notice to the parents or guardians. In others it was necessary to provide clothing or school books. In still others the official notification was ignored and prosecution followed. During the year assistance was given 6,442 children to enable them to go to school. Its cost amounted to \$17,087.41, an average of \$2.65 per capita. Three hundred and eighty-three cases were taken into court. Ten of

these were pending at the close of the year. Of the 373 closed, only 33 were decided against the truant officer. The work done required 16,465½ days' time, the truant officers making in all, 76,926 visits. Their salary under the law is \$2.00 per day. In some cities an additional allowance is granted. The reports received show salaries amounting to \$32,965. This sum added to the assistance given children, makes the total cost of administering the law \$50,052.41.

Truancy Statistics 1910-11.

Number of truant officers	110
Number of days spent in service	16,465½
Number of visits made	76,926
Number of pupils brought into school—	
To public schools	21,930
To private schools	989
	————— 22,919
Number of children aided—	
To attend public schools	6,278
To attend private schools	164
	————— 6,442
Number of prosecutions—	
Successful	340
Unsuccessful	33
Pending	10
	————— 383
Cost of administering the law—	
Salaries to truant officers	\$32,965 00
Assistance to children	17,087 41
	—————
Total	\$50,052 41
Cost per capita for children brought into school	\$2 18
Cost per capita of assistance given	\$2 65

STATISTICS—COMPULSORY EDUCATION—1910-1911.

COUNTIES.	No. of Officers.	No. of Pupils Brought Into School.	No. in Public Schools.	No. in Private Schools.	No. in Visits Made	No. Given Assistance.	No. in Public Schools Assisted.	No. in Private Schools Assisted.	Cost of Assistance.	No. of Days Spent by Truant Officers.	Allowance Made Truant Officers.	No. Prosecution.	Successful.	Unsuccessful.	Pending.
Adams...	1	98	98		433	2	2		88 45	145	\$290 00				
Allan...	2	1,844	1,791	53	1,753	83	78	5	105 25	389	778 00				
Bartholomew...	1	438	432	6	652	32	32		117 00	168	320 00				
Benton...	1	49	31	15	70	24	14	10	100 50	49	98 00				
Blackford...	1	45	40	5	331	84	82	2	196 56	150	300 00	1	1		
Boone...	1	95	95		25	58	58		173 72	150	300 00				
Brown...	1	75	75		20	10	10		7 00	20	40 00				
Carroll...	1	10	7	3	125	12	12		25 00	140	280 00				
Cass...	1	185	175	10	409	148	143	5	359 04	185	370 00	12	12		
Clark...	2	422	414	8	1,508	32	32		56 00	360	720 00	4	4		
Clay...	1	200	185	15	2,316	35	35		328 04	247	400 00				
Clinton...	1	80	80		104	104	104		165 00	206	412 00				
Crawford...	1	75	75		210					32	64 00				
Daviess...	1	39	36	3	900	14	14		50 00	150	300 00	1	1		
Deaiborn...	1	219	219		482	155	155		261 00	180	360 00	3	3		
Decatur...	1	276	276		431	138	138		612 00	160	320 00	1	1		
Dekalb...	1	120	105	15	980	46	41	5	175 74	199	398 00	2	2		
Delaware...	1	125	100	25	1,060	205	205		311 20	191	382 00	1	1		
Dubois...	1	102	68	34	263	14	10	4	48 00	128	256 00				
Elkhart...	2	103	91	12	2,056	69	69		160 25	330	678 00	1	1		
Fayette...	1	12	12		50	50	50		150 00	170	340 00				
Floyd...	2	614	584	30	2,468	150	130	20	294 68	385	770 00	15	14	1	
Fountain...	1	209	208	1	492	153	153		463 53	100	320 00	8	8		
Franklin...	1	81	81		81	6	6		42 05	30	60 00	1	1		
Fulton...	1	49	49		45	51	51		160 82	180	360 00				
Gibson...	1	103	103		720	69	69		139 49	180	360 00	3	3		
Grant...	2	76	75	1	1,285	469	469		899 66	330	660 00	5	3		
Greene...	1	75	72	3	100	15	15		40 00	119	238 00	6	5	1	

COMPULSORY EDUCATION—Continued.

COUNTIES.	No. of officers.	No. of Pupils Brought Into School.	No. in Public Schools.	No. in Private Schools.	No. in Visits Made	No. Given Assist- ance.	No. in Public Schools Assist- ed.	No. in Private Schools Assist- ed.	Cost of Assistance.	No. of Days Spent by Tru- ant Of- ficers.	Allowance Made Tru- ant Officers.	No. of Res- tutions	Suc- cessful.	Unsuc- cessful.	Pend- ing.
Hamilton	1	208	208		381	43	43		62 30	121	242 00	5	5		
Hancock	1	275	275		387	54	54		350 15	147	292 00	4	4		
Harrison	1										98 00				
Hendricks	1	27	27		119	13	13		53 54	89	178 00				
Henry	1				167				3 00	113	226 00				
Howard	1	67	67		965	153	153		250 84	139	278 00				
Huntington	1	35	34	1	350	29	29		87 32	103	206 00				
Jackson	1	51	45	6	410	145	145		522 34	140	280 00				
Jasper	1	89	83	6	63	10	10		27 00	100	200 00				
Jay	1	90	90		590	11	11		55 61	169	338 00				
Jefferson	1	200	197	3	408	101	101		324 39	168	336 00	1	1		
Jennings	1	101	101		172	36	36		270 72	120	240 00	2	2		
Johnson	1	24	22	2	440	7	7		318 00	159	318 00				
Knox	1	71	55	16	334	295	39		77 35	1624	325 00	2	2		
Kosciusko	1	67	67		289	54	54		151 84	176	352 00	2	2		
Lagrange	1	70	70		45	8	8		25 78	26	52 00				
Lake	3	370	265	105	4,203	149	124	25	219 36	638	\$1,450 00	107	87	20	
Laporte	2	513	494	19	1,271	74	70	4	123 84	306	792 00	21	20	1	
Lawrence	1	1	1	1	367	143	143		486 23	1802	301 00	3	3	1	
Madison	3	702	705	57	6,486	614	589	25	1,929 90	600	1,260 00	8	8		
Marion	6	9,920	9,629	300	13,885	181	180	1	277 97	1,419	2,838 00	70	70		
Marshall	1	212	212		158	42	42		78 15	162	324 00	1	1		
Martin	1	171	171		100	15	15		27 00	95	190 00				
Miami	1	179	168	11	572	112	112		433 56	153	306 00				
Monroe	1	437	437		1,427	53	53		88 07	228	456 00	14	7		
Montgomery	1	72	72		278	120	120		268 58	151	302 00				
Morgan	1	136	136		389	192	192		385 00	114	288 00	2			
New York	1	28	28		52	16	16		23 02	52	106 00				

	1	34	34	132	12	12	12	110 00	68	136 00	3	1	1	1	1
Noble															
*Ohio	1	7	7	134	30	30	30	80 09	111	222 00					
Orange	1	92	92	65	34	34	34	68 17	99	198 00	1		1		
Owen															
Parke	1	66	66	132	16	16	16	31 61	46	92 00	2	2			
Perry	1	97	83	210	14	14	14		241	482 00	7	7			
*Pike	1														
Porter	1	31	27	4	6	6	6	136 07	180	360 00	1	1			
Posay	1	81	67	14	46	46	46	75 77	240	480 00	2	2			
Pulaski	1	7	7	67	6	6	6	22 46	100	200 00	1	1			
Putnam	1	112	112	360	37	37	37	73 60	108	216 00					
Randolph	1	11	11	127	37	37	37	221 45	82½	165 00					
Ripley	1	236	226	342	27	27	27	54 00	146	226 00	6	5	1		
Rush	1	51	51	617				111 48	116	232 00	1	1			
*Scott															
Sheddy	1	39	39	353	74	74	74	448 50	105	210 00	3	3			
Spencer	1	125	125	70	12	12	12	40 35	78	156 00	2	2			
Starke	1	123	122	1	21	21	21	62 05	140	280 00	2	1	1		
Stephen	1	61	60	76	6	6	6	14 40	60	120 00					
St. Joseph	3	432	276	5418	69	63	6	119 95	657	1,314 00	5	5			
Sullivan	1	152	152	672	120	120	120	233 00	156	312 00	8	8			
Switzerland	1	31	31	130	3	3	3	6 00	140	280 00					
*Tipperrnne	2	171	137	1,193	94	94	94	160 00	278	554 00	3	2	1		
Tipton	1	102	102	437	38	38	38	148 51	149	298 00	2	2			
Union	1	32	32	35	5	5	5	14 00	22	44 00					
Vanderburgh	3	372	362	3,769	373	365	8	1,005 30	524	1,048 00	23	21	2		
Vermillion	1	30	30		40	40	40	80 00	90	180 00					
Vigo	1	8	8	286	35	35	35	125 00	209	418 00	3	3			
Wabash	1	137	137	322	45	45	45	208 75	190	320 00					
Warren	1	52	52	215	8	8	8	25 55	180	360 00					
Warrick	1			958	20	20	20	68 30	177	354 00					
Washington	1	91	91	112					69	138 00					
Wayne	1	33	33	1,501	250	245	5	228 91	168	336 00					
Wells	1	68	68	614	3	3	3	18 25	101	202 00					
White	1	31	31	142	23	23	23	51 00	80	160 00					
Whitley	1			74	1	1	1	3 56	92	184 00					
Total	110	22,919	21,930	76,926	6,442	6,278	164	\$17,087 41	16,465½	\$32,965 00	383	340	33		10

*For city of Lafayette only.

*No officer.

*Officer did not report.

*Report incomplete.

*Cities of Gary and East Chicago approximate \$250,000 in addition to transient officer's regular allowance.

THE COUNTY POOR ASYLUMS.

There is no appreciable change in the poor asylum statistics from year to year. The average number of inmates for twenty years past has been close to 3,000, two-thirds of whom were men. As the population of these institutions consists largely of defectives, the number of persons present at any one time depends to a considerable extent upon the ability of the State institutions to receive the particular class for which they respectively exist. For example, the counties in the southeastern part of the State in general have fewer inmates this year than last, a number of insane having been transferred to the new hospital for the insane at Madison. When the new cottage at the School for Feeble-Minded Youth at Fort Wayne is ready for inmates, a number of feeble-minded women will find asylum there. At the close of the year, 121 of the 377 feeble-minded women in the poor asylums were under the age of 45 years.

On August 31, 1911, the 92 county poor asylums and the Marion County Asylum for the Incurable Insane had 3,009 inmates: 2,009 males and 1,000 females. Only twice in the last two decades has the census, which was taken annually on August 31, fallen below that number: in 1896, 2,976, and in 1903, 2,962. On the other hand, the population has never been greatly in excess of that number. The general tendency is toward an increase in the northern part of the State and a decrease in the southern.

We have frequently noted that the asylum population by no means keeps pace with the population of the State. In 1891 there were 3,253 persons in these institutions at the close of the fiscal year, or 14.8 in each 10,000 inhabitants of the State; in 1901, 3,091, or 12.3 in each 10,000; in 1911, 3,009, or 11.1 in each 10,000. While the establishment of four new State institutions within the two decades mentioned, the addition of a department for women to the School for Feeble-Minded Youth and the law prohibiting the retention of children in poor asylums have had a decided effect upon the census of these county institutions, much credit is due also to the improved administration under the reform law of 1899. Better administration of township poor relief has also had its effect. In fact, the relation between the poor asylum and all other

forms of public charity is so close that what affects the latter has its influence on conditions in the asylum.

Tables which follow show the mental and physical condition of the inmates, the number present in each asylum and the total number classified by sex and age. As in previous years it will be noted that the feeble-minded, insane and epileptic predominate and that more than half the inmates are beyond the age of sixty. In the June number of the Indiana Bulletin of Charities and Correction, page 74, appears a table compiled from reports of county auditors and showing the maintenance cost of each asylum, the expenditures for land, new buildings and permanent improvements and farm receipts for the calendar years 1909 and 1910. The current expenses of these institutions amounted in 1910 to \$464,551.88, land and new buildings \$107,820.51, total \$572,372.39. From the sale of farm and garden products the county treasuries received \$107,820.51. The average attendance of poor asylum inmates is probably close to 3,000 and the annual per capita cost of maintenance about \$150.

Every county asylum in the State was visited during the last fiscal year by a representative of this board and a condensed report of the conditions found is given below. Such recommendations as seemed essential were filed promptly with the board of county commissioners concerned. Full reports are on file in this office. From them the following extracts are given.

VISITS TO COUNTY POOR ASYLUMS.

Adams County Poor Asylum. Post Office, Decatur. Visited March 22, 1911. The inmates are well cared for in every respect. J. R. Graber, who has been superintendent for sixteen years, recently resigned and his successor has been in charge only a short time. While lacking actual experience in institutional management, he is somewhat acquainted with the work, as he was a member of the board of county commissioners for six years. His salary is \$1,000 a year, and the commissioners pay the hired help, two men and two women. There are 27 inmates. Three were locked up—two insane men and an epileptic woman. This class is housed in a separate building. Electric lights were being installed and the only apparent need was a new sewer.

Allen County Poor Asylum. Post Office, Fort Wayne, R. R. 10. Visited December 21, 1910. A good asylum well equipped and carefully administered. There were 155 inmates, that num-

ber including 42 insane and 50 epileptics. There is a good, well-kept building for this class of unfortunates. There are 15 employes, including the superintendent and matron. Material is on the premises for the construction of a building which will contain the laundry, milk room and a gasoline engine for pumping water.

Bartholomew County Poor Asylum. Post Office, Columbus. Visited February 18, 1911. Little change during the past year. Some badly needed bedroom floors have been put in. Other repairs are needed. Some of the rooms in the basement are occupied by inmates, although there are vacant rooms on the second floor and seven unoccupied rooms on the third floor. The superintendent says that the inmates prefer to stay in these basement rooms. One of them is occupied by a woman who has been confined to her bed for several years. The cooking is done by the matron with the assistance of the inmates. A feeble-minded woman who assists in the kitchen has been an inmate of this institution for over fifty years. The bathing facilities are poor. The inmates bathe every two weeks. The men use an old zinc tub in the basement and the women the laundry tubs in their rooms.

Benton County Poor Asylum. Post Office, Swanington. Visited January 12, 1911. A modern building, well equipped and in competent hands.

Blackford County Poor Asylum. Post Office, Hartford City. Visited August 22, 1911. A two-story brick structure, poorly arranged, poorly ventilated and with poor provision for sex separation. The buildings are well kept. A new cell-house is needed for the men. The old frame building which is now occupied by the worst cases is unsanitary and unfit for use. The bath tubs need painting. The present superintendent, S. A. Mills, and his wife are to leave the institution September 1st, after an administration of eight years, in which they have done much to improve conditions. Their salary in 1909 was \$700. This was reduced in 1910 to \$600. This year a new superintendent was appointed who offered to take the place for \$480.

Boone County Poor Asylum. Post Office, Lebanon. Visited January 18, 1911. The building needs paint and inside repairs. It was not very clean and there is need of better supervision. The superintendent and matron, both of whom are past 65 years of age, have done excellent work in the past but are now physically unable to meet the requirements. Their term expires in August.

Brown County Poor Asylum. Post Office, Nashville. Visited September 22, 1911. The building is poorly arranged for sex separation. The women's sleeping rooms are on the first floor. The furnace is out of order. The barn leaks and the foundation is bad. The fencing is in poor condition. A new superintendent took charge the first of the month. On the day of this visit an epileptic woman, twenty-seven years of age, was found locked in one end of an old shed. She had been there for several months. The shed leaks badly. There are openings in the side which admit light but there is no glass or other protection from the weather. The woman's meals are carried to her by one of the feeble-minded male inmates.

Carroll County Poor Asylum. Post Office, Delphi. Visited September 26, 1911. This is a new building, completed and occupied within the past year. Its plan is good and it is well built but poorly administered. New furniture has been provided. The dining-rooms have been furnished with 42-inch tables. This is a great improvement over the ordinary long table. A new barn, with cement floor, was completed recently and there is material on the place for new fences.

Cass County Poor Asylum. Post Office, Logansport. Visited January 19, 1911. The building is old and poorly arranged but well kept. The men's quarters are overcrowded.

Clark County Poor Asylum. Post Office, Charlestown. Visited August 9, 1911. This is a well equipped institution and the inmates are comfortably cared for.

Clay County Poor Asylum. Post Office, Ceterpoint. Visited December 2, 1910. The old, unsatisfactory building which has served this county for a poor asylum has been torn away and a new two-story brick building is being erected. It will not be ready for occupancy for several weeks. Temporary buildings are in use. The superintendent, who has had charge for fourteen months, appears to be a good man for the place and seems greatly interested in bringing the institution up to the proper standard.

Clinton County Poor Asylum. Post Office, Frankfort. Visited January 18 and March 24, 1911. An old building, poorly arranged but well kept. It is in good repair except the plastering is off in places. More room is needed for the women but extensive improvements or additions are not recommended for this old building. The superintendent and his wife are very capable and have done much to better conditions in general. The tact they

use in dealing with the inmates is worthy of mention. They study them and learn what kind of work they like best and have very little trouble in controlling them. Sex separation is poor. There is no special provision for the insane, of whom there are two men at this time. Both must be locked up at night and one wears a block and chain.

Crawford County Poor Asylum. Post Office, Magnolia. Visited September 14, 1911. A one-story frame building with galvanized roof, ceiled. It is poorly arranged for sex separation. The building is very old and worn but it is in much better condition than when last visited. It has recently been painted inside and out. The inmates bathe irregularly. Bath tubs are needed and some new beds. One man sleeps on a wooden bunk. The sleeping rooms are used also as sitting-rooms. There is no opportunity to isolate the worst cases. A man badly afflicted with cancer is sleeping in a room with another man and the two use this room as a sitting-room in cold weather. One of the women inmates has with her a daughter 15 years old who is feeble-minded. She has been in the institution a year.

Daviess County Poor Asylum. Post Office, Washington. Visited August 16, 1911. An old, brick, poorly arranged and inadequate building. There is poor provision for sex separation. A new building is needed. The men's sitting-room is in the basement and is very gloomy. A crippled man who is unable to get upstairs sleeps in this room and has all kinds of rubbish in it. All the inmates eat in the small kitchen in the basement. No sitting-room is provided for the women. The superintendent and his wife do well under the circumstances.

Dearborn County Poor Asylum. Post Office, Aurora, R. R. 2. Visited May 9, 1911. The population is 29. The commissioners pay the superintendent and matron an annual salary of \$480 and \$240 respectively and furnish two men and two women employes. However, the building shows lack of care and the cooking is done by the inmates. In an old, unsanitary cell-house, unfit for use, an idiotic man thirty-eight years of age was confined. He was lying on a pile of straw. Cistern water was being used, the well having been condemned. There was an epidemic of typhoid fever here last year and one of the inmates died.

Decatur County Poor Asylum. Post Office, Greensburg, R. R. Visited January 27, 1911. The building is old but well kept and the inmates receive good care. They have a good variety of whole-

some, well-prepared food. A new hospital building was completed during the past year. It is strong and well built but poorly arranged for its purpose. The plans for this building were not submitted to the Board of State Charities for approval, as required by law.

Dekalb County Poor Asylum. Post Office, Auburn. Visited March 24, 1911. This building is constructed on modern plans but is only fairly well kept. The women's quarters were found clean but the men's side was less satisfactory. A room occupied by a sick man was in very bad condition. This is not due to a lack of help, for the commissioners furnish two hired men and three hired women. There are 35 inmates. The building has been wired for electricity but the lights have not been installed. This should be done and the interior of the building should be painted.

Delaware County Poor Asylum. Post Office, Selma. Visited January 5, 1911. A two-story brick, poorly planned building with plastering off in many places and paint off the walls. Extensive repairs are needed. A one-story brick building with cement floor is used for the worst cases. The inmates and house appeared clean.

Dubois County Poor Asylum. Post Office, Jasper, R. R. 1. Visited August 7, 1911. This is a very satisfactory poor asylum. The inmates receive good care.

Elkhart County Poor Asylum. Post Office, Goshen. Visited March 29, 1911. The poor are well cared for in this county. The institution is in competent hands. There are nine employes, including superintendent and matron. A man is employed to look after the sick and infirm men. This is a commendable arrangement. The food is prepared by a hired cook. Some repairs are needed.

Fayette County Poor Asylum. Post Office, Connersville. Visited November 3, 1910. In very bad condition. A new building is greatly needed. The superintendent deserves commendation for keeping the place as well as he does.

Floyd County Poor Asylum. Post Office, New Albany. Visited December 13, 1910. An old and poorly arranged building. Its condition was about as good as could be expected under the circumstances.

Fountain County Poor Asylum. Post Office, Covington. Visited April 29, 1911. Considering its age this building is in good condition. It is well managed. The superintendent deserves much credit for the improvement he has brought about.

Franklin County Poor Asylum. Post Office, Brookville. Visited November 2, 1910. One- and two-story brick buildings, metal roof. The buildings are old, the window-shutters are off or broken, the roof leaks and repairs are needed to the floors and back stairs. The farm buildings and fences need attention. Kerosene lamps are used for lighting the institution and steam for heating purposes. The bath room should be heated. The cooking is done by the inmates under the direction of the matron. The main building is clean, but that for the men is not. The sexes are only partially separated.

Fulton County Poor Asylum. Post Office, Rochester. Visited January 20, 1911. In about as good condition as its age and poor arrangement will permit. There is great need of a custodial building. The worst cases are now being cared for in old frame buildings, heated by stoves. They have no water, bathing facilities or closets.

Gibson County Poor Asylum. Post Office, Princeton. Visited February 16 and May 18, 1911. The building is old and poorly arranged but well kept. The superintendent and matron deserve much credit for this condition. The building is in good repair inside but suffering for repairs and paint outside. The old frame part used as a dining-room and kitchen is nothing but a fire trap. Other arrangements should be made for the domestic departments. The farm buildings are in poor condition.

Grant County Poor Asylum. Post Office, Gas City. Visited October 26, 1910. The place was in excellent condition and well managed.

Greene County Poor Asylum. Post Office, Bloomfield. Visited April 14, 1911. An old, poorly arranged building, but clean throughout. A woman suffering from cancer and another woman who cares for her were in an old frame building in the rear yard on the men's side. The main farm, containing 225 acres, is more than a mile from the institution and a new building should be erected there.

Hamilton County Poor Asylum. Post Office, Noblesville. Visited November 4, 1910. The women's quarters were in excellent condition, but those of the men were very poor. An insane man whose limb had been broken the week before was lying in bed wearing the same clothing which he wore when hurt. Another man in the same room had been in bed a year. The bedding was not clean and was infested with vermin. An insane woman who

was in bad condition was confined in a small cell in the basement.

Hancock County Poor Asylum. Post Office, Greenfield, R. R. 3. Visited September 6, 1911. Some repairs have been made and some new equipment provided. The institution is in much better condition than when last visited.

Harrison County Poor Asylum. Post Office, Corydon. Visited September 15, 1911. The main building, a two-story frame, is poorly arranged for its purpose and is in bad repair. The provision for sex separation is inadequate. The one-story frame building which contains the kitchen and dining-room is unfit for use. The roof leaks, the plastering is off in many places and the walls are filthy. The cooking is done by the inmates. A feeble-minded, crippled woman who can not talk plainly and can not walk, does most of this work with the assistance of a feeble-minded colored man. On the day of this visit their clothing was very dirty and the food was poorly prepared. A single coal-oil lamp is provided for the use of the inmates and it was in the men's sitting-room. The women spend the long winter evenings in the dark. The new superintendent is discouraged. This is one of the worst institutions in the State. A new building is needed.

Hendricks County Poor Asylum. Post Office, Danville. Visited September 30, 1911. The institution is in excellent condition. The superintendent and matron have had considerable experience and are very competent. Improvements have been made during the past year. The building has been wired throughout for electric lights. A new brick building with cement floor has just been completed. It is at the rear of the main building and will be used as a wash-house and laundry, thus making it possible to remove the laundry from under the building where it has been for so many years. Three of the inmates are insane. They are quartered in the basement and must be kept locked up. They are not neglected but the basement is not the proper place for them. The farm and farm buildings are in fine condition.

Henry County Poor Asylum. Post Office, New Castle. Visited September 7, 1911. An old but well kept institution. Painting is needed inside and outside. The walls are all clean, having been recently kalsomined. Complete sex separation. The inmates are well cared for.

Howard County Poor Asylum. Post Office, Kokomo, R. F. D. 2. Visited June 28, 1911. In fair condition. The inmates are allowed to have too many things in their rooms. Bedbugs are

plentiful. Money was appropriated by the county council last September for a new dining-room and kitchen but nothing had been done toward the building at the time of this visit. The custodial building was burned in September, 1910, and a new one was completed recently.

Huntington County Poor Asylum. Post Office, Huntington. Visited March 17, 1911. The asylum is in very bad condition. The building has been neglected and is badly out of repair. The county should either erect a new building or give the present one a thorough overhauling. The capacity is inadequate. There are no bath tubs. A part of the building is heated by a hot air furnace and kerosene lamps are used for lighting. The cell house has been condemned and was not in use at the time of this visit. The laundry building is unfit for use.

Jackson County Poor Asylum. Post Office, Brownstown. Visited April 11, 1911. An old institution but well managed and the inmates appear well cared for. A new cell house is needed. A new heating plant recently completed will supply the court house, jail and poor asylum. There is city water in the yard but it is not piped into the house. This should be done. Soft water is forced into a tank in the attic but the supply is often inadequate for the inmates' baths, which they take every two weeks.

Jasper County Poor Asylum. Post Office, Rensselaer. Visited January 13, 1911. There is much room for improvement both in the buildings and in the administration. The custodial building is a disgrace, yet it was occupied at the time of this visit by four men.

Jay County Poor Asylum. Post Office, Portland. Visited January 6, 1911. A modern building, well equipped and in competent hands. The inmates receive good care.

Jefferson County Poor Asylum. Post Office, Madison. Visited August 10, 1911. A new building is needed. The farm is poor.

Jennings County Poor Asylum. Post Office, Vernon, R. F. D. 1. Visited December 7, 1910 and May 5, 1911. A fairly satisfactory institution. The house and premises are in good condition. A hot water heating plant has been installed during the past year. Other repairs are needed, particularly new floors in the men's sitting-room and in the hallways on the lower floor. A fire-escape should be provided at the north end of the woman's building. Both men and women eat in the same room. An inmate does the cooking and supervises both kitchen and dining room. Better re-

sults would be obtained if this department were in charge of an employe.

Johnson County Poor Asylum. Post Office, Franklin. Visited August 25, 1911. An old building poorly arranged but well kept. There is very poor provision for sex separation. Kerosene lamps are used for lighting. No heat is provided for the second floor. There are bath tubs but no inside toilets. In the rear of the main structure are several old buildings which are mere shacks. They should be removed. The outside closets are in a very unsanitary condition and require immediate attention.

Knox County Poor Asylum. Post Office, Vincennes. Visited February 15, 1911. The asylum is in poor condition. The building is not well arranged and needs repairing. The kitchen, dining-room, sitting-room and a few sleeping-rooms are in the basement. One of the bedrooms has a brick floor. The sitting-rooms are dark and gloomy. The men eat in the kitchen. They bathe in an old tin bath tub in the laundry building, which has no water connection. The women bathe in laundry tubs. The present superintendent, who has been in charge for thirteen years, is a good man and does well under the circumstances. The farm contains 175 acres. The commissioners refuse to furnish a farm hand and as the superintendent's salary is only \$500, he can not well afford to hire one himself. Some assistance is rendered by insane inmates. The commissioners recently hired a woman to help about the institution.

Kosciusko County Poor Asylum. Post Office, Warsaw. Visited October 28, 1910. A modern building, well equipped and in competent hands. The superintendent makes a special effort to interest the people of his county in the institution. A public picnic is held on the grounds every summer and other invitations are sent out during the year. The superintendent says one result of this is that he has little difficulty in getting what he asks of the commissioners because the taxpayers are interested and demand it.

Lagrange County Poor Asylum. Post Office, Lagrange. Visited March 28, 1911. The women have comfortable quarters but the men's building has more the appearance of a jail than of a home. It was originally intended for a custodial building and is divided into cells. The corridor is used for a sitting room. There is no privacy whatever. The cells are dingy, the floors old and worn. The buildings should have a new wing for the men. The stoves which now heat the central building should be replaced by

a heating plant. The superintendent's salary is \$700. No help is furnished.

Lake County Poor Asylum. Post Office, Crown Point. Visited January 16, 1911. The asylum was found badly overcrowded but in as good condition as could be expected. Since the visit plans have been adopted for a new institution.

Laporte County Poor Asylum. Post Office, Laporte. Visited August 17, 1911. A fairly well arranged and equipped institution but the administration has not been satisfactory. A new water system with bath and closets has been installed. With better administration this would be a very satisfactory asylum. There were many bugs on the beds and in the rooms. The inmates' rooms were not clean. Better laundry equipment is needed.

Lawrence County Poor Asylum. Post Office, Bedford. Visited December 17, 1910. The conditions in this county are disgraceful. The buildings are frame, very old and very poorly furnished. The superintendent does the best he can with the poor facilities provided. The county should provide its poor with a better home.

Madison County Poor Asylum. Post Office, Anderson, R. R. 13. Visited January 3, 1911. The building is well equipped, well kept and satisfactorily administered.

Marion County Poor Asylum. Post Office, Indianapolis, Station 5, R. R. 19. Visited November 29, 1910. There was little change from the unsatisfactory conditions heretofore reported. The buildings were in bad repair, unsanitary and poorly kept. However, the new building for women has since been occupied and we understand that this change has resulted in a decided improvement. The superintendent and matron apparently want to do what is right but they lack institutional knowledge and experience.

Marion County Asylum for the Insane. Post Office, Julietta. Visited May 24, 1911. Conditions are only fairly satisfactory. The farm buildings and fences are good and the dooryards neat but the building occupied by the inmates is in need of a number of minor repairs as well as better care. The women's quarters are in better condition than those of the men. A better standard of care for the inmates is needed but it will be necessary to provide the superintendent with additional help before this can be brought about. The inmates appeared in good health.

Marshall County Poor Asylum. Post Office, Plymouth. Visited April 1, 1911. A good building, well arranged, with modern conveniences. Some minor repairs and some painting which could be done at little expense, would put it in good condition.

Martin County Poor Asylum. Post Office, Shoals, R. R. Visited December 16, 1910. The asylum is a frame building, very old and very poorly furnished. The poor facilities of the place make it impossible for the superintendent to give the inmates proper care but he is doing as well as could be expected under the circumstances. A new asylum is needed.

Miami County Poor Asylum. Post Office, Peru. Visited August 18, 1911. This is an old building, fairly well planned. The north end is badly cracked but other parts are in fair condition. The sexes are separated. The kitchen is in the basement. It would be well to move this to the first floor. An electric light plant was installed recently but it is not satisfactory and is not being used. A new barn is needed.

Monroe County Poor Asylum. Post Office, Bloomington. Visited December 12, 1910. The poor asylum has been greatly improved by reason of plastering, painting and repairs and it is well kept. The superintendent and matron take much interest in the inmates. There is need, however, of other improvements, including proper heating equipment and better provision for inmates requiring custodial care. The matron should have more help.

Montgomery County Poor Asylum. Post Office, Crawfordsville, R. R. 6. Visited January 11, 1911. A two-story brick building, old and badly worn. Painting is needed throughout. New plumbing and closets should be installed. The cement floor in the women's toilet is bad. A new floor is needed in the men's dining room. A one-story brick building, containing eight cells, is used for the insane and worst cases. There were five insane at the time of this visit. The inmates are allowed to have too much in their rooms. It is necessary to use the sleeping-rooms also as sitting-rooms because there are no living-rooms except the halls. The toilet-rooms were in bad condition. There were some leaks and water was standing on the floor. There was a bad odor. The wash stands were dirty and the bath tubs were not as clean as they should be.

Morgan County Poor Asylum. Post Office, Martinsville. Visited September 9, 1911. Population 33. A two-story brick, poorly arranged building, old and worn. The plastering is off in several places and the walls are very dirty and dingy. There is poor provision for sex separation although effort is made in this direction. More clothing is needed for the men. Coal oil lamps are used and the building is heated by steam. The institution has a gloomy appearance. The present superintendent took charge only a week

before the day of our visit. He seems interested and anxious to better conditions, but has not yet had an opportunity to do much. When he took charge a woman, afflicted with cancer, was assisting in the cooking, and washing dishes. She has been relieved of all work. She suffers intensely. A man and his wife have been employed, the former for the farm work and the latter to do the cooking.

Newton County Poor Asylum. Post Office, Kentland. Visited September 27, 1911. This is a new building only recently occupied. Its plan is satisfactory, but it was not built according to contract, and should not have been accepted. An inferior grade of material was used and the work was poorly done. The interior walls are of soft, rough brick and many of them are already crumbling. The cracks and rough places in the walls afford hiding places for vermin. The wood work was finished with a cheap grade of paint instead of varnish. The sewer is defective and a part of the basement floor was covered with water on the day of this visit. The laundry work is done in the basement to the detriment of the building.

Noble County Poor Asylum. Post Office, Albion. Visited December 22, 1910. There has been much improvement during the past year but the kitchen, dining-room and men's sitting-room are still in the basement. A large, well ventilated room on the first floor which would make a good sitting-room, is kept for use in case of a death. For many years the cooking has been done by the inmates. On the day of this visit this work was being done by a man nearly eighty years old, with the assistance of an old, one-armed woman.

Ohio County Poor Asylum. Post Office, Rising Sun. Visited May 10, 1911. There were only three inmates on the day of this visit and the average population is but little more. The building is in good repair and is well kept. The farm buildings need repairs. We believe it would be profitable for the institution to have more stock.

Orange County Poor Asylum. Post Office, Paoli. Visited December 11, 1910. A modern building, well kept and in competent hands.

Owen County Poor Asylum. Post Office, Spencer. Visited April 15, 1911. This building is of old type but well kept and the inmates receive good care.

Parke County Poor Asylum. Post Office, Rockville, R. R. 7. Visited November 30, 1910, and May, 1911. A modern building.

well kept and in competent hands. The noon meal was ready to serve as the institution was reached. It consisted of meat, four cooked vegetables, young onions and radishes, molasses, bread, butter and buttermilk. There was an ample quantity and it was well prepared by a hired cook. The kitchen, dining room and women's quarters were clean but the men's department was less satisfactory. The superintendent has been sick for some time and unable to give the place personal supervision.

Perry County Poor Asylum. Post Office, Cannelton. Visited September 14, 1911. Population 11. The superintendent's salary is \$365 annually and the commissioners furnish help in the kitchen. His family consists of himself, wife, four children and his mother. A brick, one-story, tin-roofed building, old and worn. Inside painting and new flooring are needed. Bath tubs should be installed. The building is well kept and the superintendent and matron are much interested in their work. Coal oil lamps are used.

Pike County Poor Asylum. Post Office, Petersburg, R. R. Visited August 16, 1911. The institution is well equipped and the inmates receive good care.

Porter County Poor Asylum. Post Office, Valparaiso. Visited March 31, 1911. The asylum is an excellent structure and the general conditions are good. Appropriations have been made for electric lights and a new gasoline engine for pumping water, both of which will be installed soon. The cooking is done by a hired man and the commissioners pay for one farm hand.

Posey County Poor Asylum. Post Office, Mt. Vernon. Visited July 8, 1911. A brick building in fair condition. Screening is needed and some of the rooms on the second floor should be painted. Complete sex separation. The insane are cared for in four rooms in the rear of the main building.

Pulaski County Poor Asylum. Post Office, Winimac. Visited September 28, 1911. A two-story brick building with slate roof. The institution is well kept and in good hands. The superintendent and matron have done much to improve conditions. Complete sex separation. The women's quarters, also the granary, have recently been painted and the basement whitewashed.

Putnam County Poor Asylum. Post Office, Greencastle, R. R. 6. Visited May 5, 1911. The commissioners have neglected the county's property and it is in bad condition. The building is poorly arranged for the separation of the sexes. The house is fairly well kept. There are no bath tubs. Several of the inmates are advanced in age and are in poor health. Some new flooring

was laid recently. The house is unsafe. The men's closet is too near the main building and is not only offensive but very unsanitary. A good driven well and a tank for fire protection are needed. Bath tubs and closets should be installed.

Randolph County Poor Asylum. Post Office, Winchester. Visited March 4, 1911. An exceedingly well kept asylum. The farm, with its 300 acres, is larger than is necessary. The superintendent's salary is \$1,500 and he furnishes all help. One man and one woman were employed at the time of the visit. There is need of better provision for the worst class of inmates.

Ripley County Poor Asylum. Post Office, Versailles, R. F. D. Visited December 8, 1910 and September 21, 1911. This is one of the worst poor asylums in the State. The farm contains 519 acres, and because of its size requires attention that should be given to the inmates. There is a one-story frame building for the men and a two-story frame building used by both men and women. Both are old and in poor condition. The walls are dirty and infested with vermin. The buildings are heated by stoves. Sixteen were in use last winter. This arrangement is very dangerous. It is almost impossible to keep the inmates comfortable in severe weather. There are three cells beneath the women's building for the confinement of the insane. It is a poor place indeed. These cells are heated from a stove in the corridor and there is no water or closet. An idiot who was confined in one of these cells for several years, a part of the time handcuffed, was burned to death in July. The origin of the fire is not certainly known but the superintendent thinks there must have been a coal of fire on the pan in which his food was carried and that this ignited the straw on which he slept. It is said that when the present superintendent took charge two years ago this man was sleeping on a cement floor. He was afterwards provided with a box filled with straw, and this served him as a bed. A physician was summoned immediately after the accident, but the man died before he arrived. The coroner made an investigation. The inmates do their own cooking and they eat in the kitchen. The bread was not fit to eat and the kitchen was not as clean as it should be on the day of this visit. The laundry building is old and unfit for use in the winter. There are no bathing facilities. The men bathe in a pond in the summer. The superintendent has eleven children, all living at the institution, and the oldest, a girl of eighteen, is paid by the county to work in the superintendent's quarters. With the poor facilities provided

it is impossible to keep this institution in proper condition, but it might be cleaner.

Rush County Poor Asylum. Post Office, Rushville. Visited August 11, 1911. A poorly arranged, brick building, but in good condition. Bath tubs and inside closets are provided, but as there is no means of heating the building except by stoves, these can not be used during the winter. The water is turned off in the fall to prevent the pipes from freezing. One result is that it is necessary to use outside toilets and this is a great hardship on the feeble old women in the institution. The quarters for the women are on the second floor, while the men occupy the first floor. This arrangement does not seem the best, as some of the women are unable to climb the stairs. Natural gas is used to light the institution. There is poor daylight in the halls, which are used as sitting-rooms, and the gas is therefore kept burning all day.

Scott County Poor Asylum. Post Office, Scottsburg. Visited April 12, 1911. A good brick building, but the plan of construction is not modern and there are no modern conveniences. The place is well kept. Some repairs and a new laundry building, a smokehouse and a new woodshed are needed.

Shelby County Poor Asylum. Post Office, Shelbyville, R. R. 3. Visited January 26, 1911. A new building is needed. The present one is inadequate in every respect. One room, which has no outside air or light, is used as a bedroom and in one corner of it is a cage, the asylum's only provision for the insane. The cooking is done in a small room which serves both as kitchen and dining-room. A new \$5,000 barn was built this year.

Spencer County Poor Asylum. Post Office, Rockport. Visited August 18, 1911. The bad conditions reported last year still exist, but plans for a new building have been approved and the contract let.

Starke County Poor Asylum. Post Office, Knox. Visited June 29, 1911. There were only six inmates on the day of this visit. They eat at the superintendent's table. Repairs are needed.

Steuben County Poor Asylum. Post Office, Angola, R. R. 3. Visited March 25, 1911. The building is about twenty-five years old and is in need of general repairs. The superintendent has been in charge for twenty years. He leaves September 1st.

St. Joseph County Poor Asylum. Post Office, South Bend. Visited March 30, 1911. In excellent condition throughout. There are 99 inmates and 10 employes besides the superintendent and

matron. The institution has a well equipped hospital department, with a trained nurse in charge.

Sullivan County Poor Asylum. Post Office, Sullivan. Visited December 3, 1910. A two-story brick building, well arranged for the purpose. The plumbing should be repaired and the interior painted and varnished. Kerosene lamps are used. The inmates are well cared for.

Switzerland County Poor Asylum. Post Office, Vevay, R. R. Visited May 11, 1911. An old, dilapidated building, part of which is hardly fit for habitation. No one is employed to help the superintendent or his wife. Upon investigation it was learned the inmates are frequently left alone. In the asylum at the time of this visit was a young, feeble-minded woman awaiting admission to the School for Feeble-Minded Youth. A new building is needed. The present one is not worth repairing and the inmates can not be cared for properly in it. In our opinion it would be economy for the county to sell the farm and purchase more productive land.

Tippecanoe County Poor Asylum. Post Office, West Lafayette. Visited January 11, 1911. In good condition and for the most part well managed. However, the matron spoke of whipping the inmates, also of putting them in a dungeon. She and her husband receive a salary of \$2,300 annually and furnish all help.

Tipton County Poor Asylum. Post Office, Tipton. Visited August 30, 1911. The buildings of this institution are old and worn, but the administration is good and the inmates are as well cared for as is possible under the circumstances. The provision for sex separation is inadequate. There is no means of heating the bed-rooms. An aged insane woman occupies one of these rooms and it is necessary to keep the door locked. The matron said it was impossible to keep her comfortable last winter.

Union County Poor Asylum. Post Office, Liberty. Visited August 12, 1911. Needed repairs have been made and additional equipment provided. The institution is in very satisfactory condition.

Vanderburgh County Poor Asylum. Post Office, Evansville, R. F. D. 4. Visited June 29, 1911. This is not a modern structure, but its equipment is satisfactory and it was found absolutely clean. Sex separation is secured by means of separate departments and careful supervision. The main building is three and one-half stories high, with two stairways. Fire-escapes are needed. There were 40 insane inmates present on the day of the visit. The pro-

vision for their care is not ample. They have a separate building, but it is poorly planned and in bad condition.

Vermillion County Poor Asylum. Post Office, Newport. Visited November 28, 1910. A two-story brick structure, with slate roof, poorly arranged for the purpose. The roof leaks and the plastering has fallen in places. We were told this was soon to be repaired. The superintendent receives a salary of \$1,200 annually. His family consists of himself, wife and five daughters. The population at this time is 26. Three inmates are insane. They have comfortable quarters, good light and air. There are two bath tubs in the basement for men and women, but the one for the women is not used. They use small tubs on the second floor. Better bathing facilities should be provided for the women. There should also be inside toilets. A lighting plant is needed. Kerosene lamps are now used. The beds do not look neat and some of the bedding is dirty. The inmates are permitted to have too much rubbish in their rooms, such as old boxes, bottles, tin cans, papers, old clothing, etc. One of the old ladies who has been confined to her room for seven years has her room filled with rubbish and will not allow any one to clean it. A steam plant is under the building, but only a part of the building is connected. Some stoves are used, other rooms are without heat. The men use their dining room as a sitting room also. More help is needed about the house. At present the only help the matron has in the general housework is her young daughter. The superintendent and his wife seem disposed to do the right thing.

Vigo County Poor Asylum. Post Office, Terre Haute. Visited September 6, 1911. The building is old and inadequate for the needs of the county. It was found fairly clean. There was a very disagreeable odor in that part of the building occupied by the untidy inmates. The men's part was not as clean as it should be. Kerosene lamps are used for lighting. The condition of the building makes it almost impossible to keep the place free from vermin. Quarters for the insane have been erected at the rear of the main building. There were 13 insane persons in the institution, nine of whom were locked up.

Wabash County Poor Asylum. Post Office, Wabash. Visited August 25, 1911. The men and women occupy separate parts of the same building. The door between is locked at night but not during the day. The superintendent occupies a cottage nearby. The institution is in good repair, considering the age of the build-

ing. The men's sitting-room and the interior of the cell-house need paint. A range and some new chairs should be provided. The farm buildings are in good condition and the dooryards neat and clean. At the time of this visit the superintendent and matron were absent and the inmates were alone. The cooking is done by a crippled woman inmate with the assistance of other inmates. A reliable person should be employed to do the cooking and to take charge of the institution in the absence of the superintendent.

Warren County Poor Asylum. Post Office, Williamsport, R. R. 1. Visited April 28, 1911. The population of this asylum seldom exceeds twelve. The superintendent receives an annual salary of \$1,200. He employs a farm hand when needed and pays one of the inmates \$1.50 per week for her services as cook. While this is an old building, without modern conveniences, it is well kept and the inmates are well cared for.

Warrick County Poor Asylum. Post Office, Boonville. Visited July 7, 1911. A two-story frame building. The roof has recently been patched, but still leaks in several places. A new roof is needed. The walls are dirty. Although some of them have been whitewashed, they do not look well because they were so black. The main building should be painted inside and outside. The inside closets have not been used for about a year because they are out of order. The washing machine is broken and washboards are used. A new machine should be provided. Kerosene lamps are used. Sex separation is good.

Washington County Poor Asylum. Post Office, Salem, R. R. Visited December 14, 1910. Population 41. A good building, well kept and in good hands. The interior needs painting. Complete sex separation. The men's quarters are not as clean as those for the women. Special provision is made for the insane. One insane man who is locked up has been in the institution twenty-five years. Living in the poor asylum the inspector found a man, paralytic, his wife feeble-minded, and a three year-old child. At the same time there were five other children of the family in an orphans' home.

Wayne County Poor Asylum. Post Office, Centerville. Visited May 26, 1911. A new one-story brick building containing a dining-room, kitchen, storeroom and laundry was recently completed. The rooms formerly used for dining-room and kitchen have been converted into sleeping-rooms for the women. This is not a satisfactory arrangement and a new wing should be built for the women. There is a good building for the men inmates.

Wells County Poor Asylum. Post Office, Bluffton. Visited August 23, 1911. Extensive improvements have been made to the asylum and it is in good condition.

White County Poor Asylum. Post Office, Monticello. Visited January 3, 1911. A modern, well equipped building with good administration.

Whitley County Poor Asylum. Post Office, Columbia City. Visited December 23, 1910. A two-story brick, old style building, poorly arranged for the purpose but well kept. It is in competent hands. A new building should be erected. Kerosene lamps are used for lighting the building and stoves for heating purposes. The hospital is heated by hot air furnace. The sexes are separated but the arrangement is poor. The women use the men's dining-room for a sitting-room. They eat in the kitchen. The men's sitting-room is in the basement. The insane are kept in the hospital building. They were formerly kept in a small wooden building. This is not in use at present.

POOR ASYLUM INMATES CLASSIFIED BY AGES.

August 31, 1911.

	Males.	Females.	Total.
Under 3 years	5	4	9
3 and under 17	6	4	10
17 and under 30	81	62	143
30 and under 45	297	178	475
45 and under 60	558	251	809
60 and under 75	678	282	960
75 and over	381	215	596
Age not given	3	4	7
Total	2,009	1,000	3,009

[illegible]

POOR ASYLUM INMATES—Continued.

COUNTIES.	MENTAL AND PHYSICAL CONDITION.																Total Population.				
	Feeble-Minded.		Insane.		Epileptic.		Paralytic.		Crippled.		Deaf.		Blind.		Feeble-Senile.				Sickly.		Able Bodied.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Randolph	10	8	1	1	1	1	1	1	4	3	1	2	2	3	4	1	2	1	1	25	
Rapley	6	6	4	1	1	1	1	1	1	1	1	1	1	1	3	1	2	1	1	15	
Rush	4	4	2	1	1	1	1	1	1	1	1	1	2	1	3	1	4	1	1	17	
Scott	4	4			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	
Shelby	3	3		1	2	3	2	1	2	3	1	1	1	3	5	1	2	1	1	20	
Spencer	3	3							1	1	1	1	1	1	1	1	1	1	1	6	
Starke	2	2			2	2	1	2		1	1	2	1	1	2	1	1	1	1	5	
Stephens	9	7	1		2	2	2	2		1	1	1	1	1	1	1	1	1	1	13	
St. Joseph	3	4	4	2	5	4	4	1	8	1	1	1	1	1	12	10	13	2	3	53	
Sullivan	3	3	1	1	1	1	1	1	3	1	1	1	1	2	4	1	1	1	1	13	
Switzerland	1	1	1	1	2	2	1	1	1	3	1	1	1	1	1	1	2	1	1	10	
Tipton	5	6	14	8	3	3	1	1	10	3	1	1	1	1	1	5	2	1	1	50	
Union	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	
Vanderburgh	2	3	18	11	1	2	2	2	2	2	1	1	1	1	5	1	11	1	1	44	
Vermilion	2	6	1	1	1	1	1	1	1	1	1	1	1	1	10	3	1	1	1	17	
Vigo	4	8	19	2	8	1	8	1	10	1	2	1	6	1	8	3	13	2	8	74	
Wabash	8	1	3	1	1	1	2	1	1	1					1	3	2	1	1	17	
Warren	3	3	1		1	1	1	1	1	1					1	1	1	1	1	5	
Warwick	1	1			1	1	2	1	1	1	1	1	1				1	1	1	8	
Washington	12	3	2	1	3	2	4	1	1	1	1	1	2	1	5	3	1	1	3	20	
Wayne	6	1	5	1	1	1	1	1	1	1	1	1	1	1	1	3	6	2	1	28	
Wells	4	6	1	1	2	1	1	1	1	1	3	1	1	1	2	3	1	1	1	13	
White	6	5							4	4	1				1	3	1	1	1	9	
Whitley	5	6		1	1	1	1	1	3	1	1	1	1	1	2	3	1	1	1	17	
Total	478	377	318	161	92	96	170	47	396	80	53	28	114	43	319	145	239	68	70	44	2,009
																					1,000
																					3,009

THE COUNTY JAILS.

The county jail statistics have been compiled this year as usual from the sheriff's reports. They include the census for September 30, 1911, the total number of admissions for the twelve months ending with that date, and the number of admissions on account of vagrancy and intoxication, for the same period. The figures relate to the Marion County Workhouse as well as to the various county jails.

There were 1,255 persons in these institutions on September 30, 1911—1,178 men and boys, and 77 women and girls. Compared with the same day last year, this is an increase of 180, and greater by 54 than the average for the four years immediately preceding.

In the distribution of this total of 1,255, we find naturally the greatest number in Marion County—140 in the jail and 154 in the workhouse. Vigo comes next with 85, and Lake and Vanderburgh follow closely with 84 and 69, respectively. There were 63 in the Allen County jail, 38 in St. Joseph, 39 in Grant, 31 in Wayne, 30 in Knox, 27 in Madison, 26 in Floyd, 25 in Laporte and 24 in Delaware. These thirteen counties are the only ones in the State in which the jail population on September 30 exceeded 20. In thirteen counties it was between 10 and 20; in 20 counties between 5 and 10; in 35 counties under 5; and the following 11 had no prisoners on the day mentioned: Benton, Harrison, Jasper, Martin, Newton, Ohio, Perry, Pulaski, Union, Warren and Whitley.

During the year 36,380 persons, according to the reports, were admitted to the county jails and the Marion County Workhouse. This number includes 33,349 men, 771 boys under sixteen years of age, 2,106 women, and 154 girls under sixteen years. Another classification shows that 15,068 served sentence or laid out fines, 771 were insane and held for safe keeping, 4,709 were vagrants, and the remaining 15,832 were held as witnesses or runaways, or after trial were discharged or sent to State institutions. Of those who served sentence, 781 were women.

The statistical tables concerning intoxication and vagrancy have been compiled from the sheriffs' monthly reports to this office. Those in jail for drunkenness during the year number 13,400. There were 12,903 men, of whom 12,216 were white and 687 were

colored, and there were 497 women, of whom 389 were white and 108 were colored. The age of these persons was reported as follows:

	Male.	Female.	Total.
Under 16 years	14	3	17
17 and under 35	5,740	292	6,032
35 and under 50	4,573	157	4,730
Over 50	2,053	34	2,087
Not given	523	11	534
Total	12,903	497	13,400

The fees for receiving and releasing the above amounted to \$4,034.40 and the cost of their board was \$46,580.87.

The vagrants in jail during the year numbered 4,455,* of whom 4,370 were men and 85 were women. Two hundred and forty-four of the men and 25 of the women were colored. Their ages were given as follows:

	Male.	Female.	Total.
Under 16 years	40	1	41
17 to 35 years	2,642	72	2,714
36 to 50 years	1,108	6	1,114
Over 50 years	509	5	514
Not given	71	1	72
Total	4,370	85	4,455

The fees for receiving and releasing the above amounted to \$1,451.75, and the cost of their board was \$6,330.86.

We are advised by the Bureau of Statistics that the total jail expenses for the calendar year 1910 amounted to \$212,455.19, of which \$131,990.04 was for boarding prisoners and \$80,465.15 for all other items of expense.

VISITS TO COUNTY JAILS.

Adams County Jail, Decatur. Visited March 22, 1911. An old type jail, with stone cells; poorly ventilated, but well kept.

Allen County Jail, Fort Wayne. Visited March 23, 1911. Old style, with poorly ventilated stone cells; over-crowded. At times it is necessary to place mattresses on the cell floors. Women and juveniles are quartered on the third floor. The jail is clean. A new building is needed.

*An apparent discrepancy between Table No. 2 and Table No. 3 in the number of vagrants calls for explanation. In some counties the sheriffs receive tramps as lodgers and do not report them in the same manner as they report regularly admitted prisoners. In some cases also they are included under the heading, "served sentence."

Bartholomew County Jail, Columbus. Visited February 18, 1911. Some improvements have been made, but the work was not done according to the plans submitted to this board for approval. The interior was painted. Most of the appropriation was spent on a massive veranda for the sheriff's residence. The prisoners are allowed in the corridor. This is unsafe.

Benton County Jail, Fowler. Visited January 12, 1911. An old style building, poorly ventilated, but strong and well kept.

Blackford County Jail, Hartford City. Visited August 22, 1911. An old jail, too small for the county, but well kept. The cells and the walls are whitewashed frequently. Bath facilities should be installed.

Boone County Jail, Lebanon. Visited January 17, 1911. An old building, needing general repairs and cleaning. New mattresses and other bedding are to be purchased soon. The inside should be painted throughout.

Brown County Jail, Nashville. Visited September 22, 1911. The log jail in this county has been condemned by the grand jury and the prisoners are taken to Johnson County Jail. However, they are retained in Brown County over night. The jail is unfit for use.

Carroll County Jail, Delphi. Visited September 26, 1911. An old type of jail, with stone cells. It is in bad repair and very poorly kept. A brick wall surmounted by an iron railing surrounds the jail. The entrance through this wall is not locked. One could also get into the jail yard by climbing from sheds on the west side. Recently a prisoner tried to escape by sawing through the wall of the jail with a saw which had been handed in. The women's quarters are heated by an old stove. It gives little heat and the women suffer from the cold. A general remodeling and cleaning up are needed; also a better administration.

Cass County Jail, Logansport. Visited January 19, 1911. A good building, in excellent condition.

Clark County Jail, Jeffersonville. Visited August 9, 1911. This jail is a disgrace to the county. The building is old, worn, unsanitary and unfit for the confinement of prisoners. Those in charge do the best they can under the circumstances. An insane man has been confined here since 1906 and has been in one cell over two years. The county should build a new jail.

Clay County Jail, Brazil. Visited December 2, 1910. A good jail, well kept. The interior needs painting and the floor should be repaired in places.

Clinton County Jail, Frankfort. Visited January 18, February 2 and March 24, 1911. A new jail is needed. The question is being agitated at this time. The present jail is as well kept as conditions will permit. There is little opportunity for the classification of prisoners and only a very small cell for women. A woman was confined in the main jail for several months last year. The insane are kept with other prisoners.

Crawford County Jail, English. Visited September 14, 1911. A brick structure, with iron cage, without any of the modern conveniences. It is not safe. Women prisoners are kept in the sheriff's residence. Water connection should be provided, and closet and bath tub installed. The beds now in use are too large for the cells. If the county does not build a new jail this building should be given a thorough overhauling. The windows should be properly screened and the interior painted.

Daviess County Jail, Washington. Visited August 16, 1911. This is a fair jail and the sheriff seems interested in keeping it in good condition. Special attention is given to the classification of prisoners. Children are cared for in the sheriff's residence. The interior needs painting.

Dearborn County Jail, Lawrenceburg. Visited May 9, 1911. A strong jail. The sheriff takes pride in keeping it in good condition. The commissioners have promised a new furnace. The one now in use does not give sufficient heat and smokes badly. The walls should be repainted after the new heating plant is installed.

Decatur County Jail, Greensburg. Visited January 27, 1911. This jail is old, with very dark and poorly ventilated stone cells. The corridors are clean, but some of the cells are not. It is impossible to keep the jail clean and sanitary. A new building is needed.

Dekalb County Jail, Auburn. Visited March 24, 1911. An old jail but well kept. It has recently been whitewashed and the two rooms used for women and juveniles have been newly papered. These rooms have water-closets but no bath. The locks on the upper part do not work. Cells are locked with padlocks. The lower cells are locked with a lever. A new jail is needed.

Delaware County Jail, Muncie. Visited January 3, July 11 and September 14, 1911. A strong jail, well managed, but inadequate for the county. A new jail is needed, but the interior of this one should be painted for present use.

Dubois County Jail, Jasper. Visited August 17, 1911. The jail is well lighted, well ventilated, strong and safe if rightly man-

aged. A basin, closet and bath tub should be installed in the women's quarters. While the jail is not as clean as it should be in some parts, it is generally satisfactory. A man awaiting trial for murder is allowed in the corridor. The iron bars at the windows are strong, but there is no other protection and tools could easily be handed through the windows.

Elkhart County Jail, Goshen. Visited March 29, 1911. A good jail, recently remodeled. In good condition. During the month of February 1911, 119 tramps were given lodging.

Fayette County Jail, Connersville. Visited November 3, 1910. This jail is strong and safe and in good condition. The sexes are separated, but it is necessary for the women to go through the men's department to get to their own. Another entrance should be provided. The locks and locking device so long out of repair have received attention.

Floyd County Jail, New Albany. Visited December 13, 1910. An old jail, remodeled. Apparently safe. Fairly clean. There is provision for separating colored from white prisoners. Otherwise there is no arrangement for classification. Sexes are separated. Heating facilities poor. Stoves are used. Ventilation is only fair. The cells on third range are poorly ventilated. A small house in the rear is used for a stone pile. One insane was present.

Fountain County Jail, Covington. Visited April 29, 1911. An old style, stone jail. The upper part is fairly well lighted and ventilated, the lower part is not. It should be painted or white-washed. The window screens on the lower part should be changed so as to admit more light and air.

Franklin County Jail, Brookville. Visited November 2, 1910. A strong jail and if repaired would be safe. The plumbing needs attention. There is one bath tub but it can not be used in cold weather. The women's department has been freshly painted. The plumbing and one of the cell doors should be repaired, broken windows replaced, the iron work on the second floor painted, and heating plant installed. An epileptic man has been confined in this jail since February.

Fulton County Jail, Rochester. Visited January 20, 1911. A strong jail, well equipped and well kept. Some of the beds are worn.

Gibson County Jail, Princeton. Visited February 16 and May 18, 1911. It is difficult to describe this jail. The plan, arrangement for ventilation, arrangement of the cells for men, classification of the prisoners, location and kind of bath and closets, are

all very poor and inadequate. The means for sex separation is merely a make-shift. While there is no mingling of male and female prisoners, at the same time conversation is possible and the men pass the women's cells in going in and out of the jail. The women are permitted to use the corridor off of which the men's department opens by an iron door. A new building should be erected.

Grant County Jail, Marion. Visited November 11, 1910. A fine, new jail, large and well planned in every respect. Ample provision for sex separation and classification of prisoners. In a perfect state of cleanliness.

Greene County Jail, Bloomfield. Visited April 14, 1911. This jail has been occupied about six weeks. Constructed of brick, with a tile roof. Well arranged for caring for all classes of prisoners, if properly managed.

Hamilton County Jail, Noblesville. Visited August 31, 1911. An old jail, poorly lighted and poorly ventilated. The walls have been whitewashed recently but the cage should be painted, also the wall in the women's cell. A bath tub, new bunks, sheets and pillows, rules, and in general a better administration are needed.

Hancock County Jail, Greenfield. Visited September 6, 1911. Old, but adequate for the county. The walls should be painted and bath tub, sheets and pillows provided. With these needs supplied the jail would be in first-class condition.

Harrison County Jail, Corydon. Visited September 15, 1911. Strong and safe, with fairly good ventilation. Arrangements have been made to repair the plumbing. The women are kept in an unfurnished room on the second floor.

Hendricks County Jail, Danville. Visited September 30, 1911. An old jail, with dingy interior needing paint. It is heated partly by hot air furnace under the residence and partly by coal stoves. No arrangement for classification of prisoners. Sexes are separated. The jail is clean.

Henry County Jail, New Castle. Visited September 7, 1911. A strong jail with complete sex separation. A bath tub is needed in the department for women. A workhouse in the rear of the jail, with a stone yard surrounded by a new cement block wall, will be opened in a few days. Means of heating and closets have not yet been provided for this department.

Howard County Jail, Kokomo. Visited June 28, 1911. Strong, safe and well kept. There is no jailer, but the sheriff's wife keeps

close supervision over the jail. She is interested and has good control of the prisoners. The sexes are separated but the department for women is on the second floor and is reached through the corridor of the main jail.

Huntington County Jail, Huntington. Visited March 17, 1911. Recently remodeled. In good condition. New plumbing has been installed. Each cell has a stationary washstand and closet. There are three new bath tubs. Some new locks were added and the old ones repaired. The bedding is all new. The walls of the jail were painted white, the iron grating green.

Jackson County Jail, Brownstown. Visited April 11, 1911. A good, strong building, well planned. If painted inside it would be in first-class condition. Stoves were used last winter, but arrangements have now been made to heat the jail from a central plant which heats the court-house and poor asylum.

Jasper County Jail, Rensselaer. Visited January 13, 1911. A small jail, strong and well kept. There are few prisoners in this county.

Jay County Jail, Portland. Visited January 6, 1911. A splendid jail, well kept.

Jefferson County Jail, Madison. Visited August 10, 1911. An old style jail, with dark, unsanitary cells. Very poor ventilation in the corridors. A new jail is needed. The women's quarters need painting for present use. Rules should be established.

Jennings County Jail, Vernon. Visited December 7, 1910, and May 5, 1911. This jail is merely a room in the court-house, divided into five cells. A dingy looking place, with little chance for proper ventilation. Only one cot is provided. When there are more prisoners they sleep on benches. The jail was empty at the time of our last visit and we were told that there were never more than eleven prisoners at one time. The bedding was scattered about the corridor. The floor was dirty and there was dirt and trash in every cell. If this room continues to be used as a jail it should be given a thorough cleaning. The department for women is used for storing boxes, old clothing, etc. It also is in bad condition. The place is unfit for the confinement of prisoners.

Johnson County Jail, Franklin. Visited August 23, 1911. This jail is not in very good condition. The bedding is not clean. After meals the prisoners wash their dishes at the bath tub. The iron sheeting partition on the top range of cells has rusted and is in bad condition near the bath tub and toilet. The waste water

from scrubbing passes through holes in the floor into the basement. The basement floor is dirt and the water remains there or soaks away. This waste water should be piped into a sewer. One insane man was in the jail.

Knox County Jail, Vincennes. Visited February 15, 1911. A good jail, of modern plan and well kept. The men's department needs painting. Better provision for the insane should be made. They are now kept in the main jail.

Kosciusko County Jail, Warsaw. Visited October 28, 1910. The jail is old, but strong. It is poorly ventilated and lighted, which makes it very unsanitary. The windows should be enlarged. It is only fairly well kept.

Lagrange County Jail, Lagrange. Visited March 28, 1911. A strong jail, well kept. The plumbing should be overhauled and bath tubs should be installed. A closet on the north side of the main floor, new wash basins, new steps in the rear of the residence, and iron beds in the women's department are needed.

Lake County Jail, Crown Point. Visited January 16, 1911. Population 79. A strong new jail with reinforced concrete cells. Sex separation. A matron has recently been appointed, but the jailer still carries the key to the woman's department. Otherwise the administration is good.

Laporte County Jail, Laporte. Visited August 17, 1911. A new jail, built in 1909. It is of stone and concrete, safe and strong, and the plan is admirable. Arrangement for sex separation and classification of prisoners excellent. Not more than six prisoners are permitted to be together at any time. The outer corridor is never accessible to prisoners. Completely equipped department for women and juveniles. Heating and ventilation good. The jail was in a perfect state of cleanliness.

Lawrence County Jail, Bedford. Visited October 12, 1910. Strong and safe. Constructed of stone and concrete. The building was erected in 1904. It seems to have settled and many doors of cells will not close and lock. Apparently poor material was used in the construction. The jail is only fairly clean. More care should be exercised in this direction. Complete sex separation.

Madison County Jail, Anderson. Visited January 3, 1911. An old, worn building and too small. In as good condition as possible with the poor facilities. The sheriff seems interested in his work. A new jail is needed. This is being agitated at this time.

Marion County Jail, Indianapolis. Visited November 29, 1910. In excellent condition; equipment good. The various details in

administration show careful supervision. Complete classification of prisoners is not possible on account of the plan of the jail, but it is arranged for in a general way. Women are supervised by a matron. Prisoners eat in a congregate dining-room. The colored department not quite up to standard of the white department in cleanliness.

Marion County Workhouse, Indianapolis. Visited August 31, 1911. Strong and safe. The cell-houses are clean but the kitchen floor and the kettle for cooking are unsatisfactory. Wood and coal are kept in the corner of the kitchen. The hospital building has not been used for several months. Men needing treatment are cared for at the city hospital.

Marshall County Jail, Plymouth. Visited April 1, 1911. A strong jail which would meet the needs of the county if the necessary improvements were made. A general remodeling is needed, as well as painting. A heating plant should be installed, bath tub put in, locking device repaired, better protection on the windows of the jail. The floors are clean, but the walls and gratings look bad. An insane man has been here for the greater part of the past six months.

Martin County Jail, Shoals. Visited December 16, 1910. The jail is in poor condition. The brick wall is lined with a thin coat of plaster. The ceiling is plastered. Two holes have been made in the walls by prisoners. There is also an opening which is large enough for a prisoner to crawl through from the jail corridor into the hall of the sheriff's residence. There should be a general overhauling to make the jail safe and sanitary. New closets and bath facilities should be put in and the jail should be painted throughout. A better heating system is needed. The plumbing is in fair condition. The only means of flushing is a rubber hose.

Miami County Jail, Peru. Visited August 18, 1911. This is a well built and properly planned jail, with every opportunity for classification of prisoners. Fairly clean. Heating and ventilation good. A heater for the bath water is needed. A new cooking range should be provided at once. The kitchen floor is rough concrete and should be repaired. One insane man was present.

Monroe County Jail, Bloomington. Visited December 12, 1910. A stone jail, and if well administered strong and safe. The heating plant has been discarded and stoves are used. The building was neither clean nor sanitary. The walls and iron work were dirty, defaced and marked, the plumbing clogged. There is no hot water in the jail. The bedding was dirty, some torn. Most of

it was on the dirty floor. Provision for sex separation. The jail needs remodeling,* enlarging, better equipment, better facilities for separation and care of prisoners and better administration.

Montgomery County Jail, Crawfordsville. Visited January 17, 1911. A strong jail but only fairly well kept. A part of the building is very dark. The prisoners at the time of this visit were in a corridor which was so dark their faces could not be seen distinctly. Another part of the jail is light, but the jailer said the prisoners were not kept there because some of them had tried to escape through the windows. A separate cell where "drunks" are kept is very dark. The jail needs painting throughout, bath facilities and a washstand in the women's quarters. The windows were dirty, the walls smoked and dusty, the corners filled with cobwebs. The floor of the quarters where the men were confined was not as clean as it should be.

Morgan County Jail, Martinsville. Visited September 9, 1911. A brick, stone and iron jail, with cement floor and steel roof. It is strong and safe. The heating is not satisfactory. The furnace should be repaired. The building is clean. The bath tubs are old and rusty. Complete separation of the sexes.

Newton County, Kentland. No jail. Prisoners are cared for in Jasper County jail.

Noble County Jail, Albion. Visited December 22, 1910, and June 5, 1911. Strong and safe. Some of the closets are old and need repairing. Sex separation, but no classification of prisoners. Rules are needed and the walls of the women's quarters and the corridor which leads to the main jail should be painted.

Ohio County Jail, Rising Sun. Visited May 10, 1911. An old building without modern conveniences and only fairly well kept. It lacks separate provision for women. At one time when four men and one woman were held in the jail the woman and her husband slept in the corridor near the cells. There is no privacy. An opening in the cement floor of each cell, leading to a vault underneath is the only closet. The sheriff thinks the vault is very deep but does not know of any way to clean it. The openings are covered and no odor is noticeable. It is an unsanitary arrangement. The building was fairly clean. The tin tub used as a bath tub was full of dirty water. The sheriff is a new man.

Orange County Jail, Paoli. Visited December 15, 1910. An old style building, but the main part is strong. It is fairly well kept. A part of the building was painted two years ago, but it is

* In September, 1911, the county council appropriated \$1,000 for repairs.

badly defaced by writing, pictures, etc. The quarters for women should be painted. The wooden floor in this part is old and poor. The plumbing needs repairing. Bath facilities should be provided. A cell which has a solid iron door is used as a bath room but it has no tubs. The building is fairly clean. Dirt had been swept into one corner of the corridor. The windows are in the upper part of the wall. A chair fastened by old rags to one of these windows was used by prisoners to enable them to see into the street.

Owen County Jail, Spencer. This jail has been torn away to make room for a new court-house and the prisoners are now kept in Morgan County.

Parke County Jail, Rockville. Visited November 30, 1910. This jail, which on the recommendation of the Board of State Charities was condemned by the judge under the law of 1909, was undergoing repairs at the time of this visit.

Perry County Jail, Cannelton. Visited September 13, 1911. The jail has a very gloomy appearance. It is poorly lighted and the walls are dark and dingy. If put in good repair it would be adequate for this county. It needs painting throughout and a fence around the rear. Sex separation.

Pike County Jail, Petersburg. Visited August 16, 1911. If properly managed, a strong and safe jail. Fairly clean, but there is too much in the cells. They were not as neat and clean as they should be. Coal oil lamps supply light. Steam heat. The bedding was in bad condition. The commissioners have issued instructions to burn the mattresses and purchase new ones. The walls should be painted or whitewashed and the cage, now a dark red, should be painted a light color. A good lighting system is needed. Rules should be established.

Porter County Jail, Valparaiso. Visited March 31, 1911. An old stone jail, but the stone cells have been taken out and a steel cage substituted. The sheriff was absent and had the key, so it was not possible to get into the cage. Provision is made for the women on the first floor, which can only be reached by the main jail corridor. The cage has recently been painted. The walls should be painted. The jail is well cared for.

Posey County Jail, Mt. Vernon. Visited July 8, 1911. Small and poorly ventilated. An insane epileptic has been here since 1908 and a feeble-minded man, violent at times, since July 30, 1910. There should be better provision for women. At present

they are kept in the upper tier of cells in the main jail. The jail is clean.

Pulaski County, Winamac. There is no jail in this county and the prisoners are cared for in the Starke County Jail.

Putnam County Jail, Greencastle. Visited May 5, 1911. An unsatisfactory stone jail, neither strong nor safe. Heated by steam and lighted by candles. Fairly clean. There had been no prisoners for over a month prior to the time of this visit. The provision for separating the sexes is inadequate. When women are present they are kept on one side of the main jail. The room in the residence formerly used for women is now used by the sheriff's family. Laundry tubs are used for bath tubs.

Randolph County Jail, Winchester. Visited March 4, 1911. A brick jail lined with steel, slate roof; strong and safe. Prisoners are kept inside the cage. The building is fairly clean, but the cells are not as well kept as they should be. Some of the walls are defaced by papers and cards. The bedding has been badly neglected. Complete sex separation. The interior needs painting, the bedding should be put in good condition and a bath tub provided in the department for women.

Ripley County Jail, Versailles. Visited September 21, 1911. A strong jail, well kept. The plumbing should be repaired. A heating plant is needed.

Rush County Jail, Rushville. Visited August 11, 1911. A strong jail, with good light and air and well kept. The first floor has been painted a light gray since our last visit. This is a great improvement. New plumbing should be installed. Of the fourteen closets in the jail, only two are in good condition. The lower part of the building is clean. The second floor, which is seldom used, is dusty.

Scott County Jail, Scottsburg. Visited April 12, 1911. A fair building and fairly well kept. It needs painting throughout. Kerosene lamps furnish light. A windmill or gasoline pump to provide water inside the jail is needed.

Shelby County Jail, Shelbyville. Visited January 26, 1911. An old building. The cells are dark and the lower part very gloomy. Fairly clean. The glass is broken in a number of the windows. These lights should be replaced, the interior painted and new bedding provided. The jail has recently changed hands.

Spencer County Jail, Rockport. Visited August 18, 1911. This jail contains a cage in which there are four cells. Prisoners are allowed in the outside corridor. This is unsafe, as the windows

are not properly protected. An insane man who was awaiting admission to the hospital was sitting at the window and near him was a bottle of whisky which had been handed in from the street. Three men escaped last year by sawing through the bars. The quarters for the women, over the sheriff's kitchen, are unsanitary and unsafe. There is a bad odor in the kitchen, due to the unsanitary condition of the floor above. With proper attention to repairs the jail would answer the purpose for present use.

Starke County Jail, Knox. Visited June 29, 1911. A good jail but inadequate. There is an iron cage containing two cells and a small corridor. Each cell contains two iron beds. It has been necessary at times to move the beds together and put three men in a cell. The jail is well kept. Inside painting should be done and there should be a closet in the women's quarters.

Steuben County Jail, Angola. Visited March 25, 1911. Old type of jail with stone cells. Poorly ventilated but well kept. A good jail in many respects.

St. Joseph County Jail, South Bend. Visited April 1, 1911. A good jail, well managed. The women and juveniles are particularly well cared for.

Sullivan County Jail, Sullivan. Visited December 3, 1910. A good strong building, fairly well kept. Constructed of stone and iron. The cage has two rows of cells with a corridor. Above are two rows of cells with iron partition between. One side of the upper part is used for women. The lower part was clean, but the part used by city prisoners on the second floor was not satisfactory.

Switzerland County Jail, Vevay. Visited May 11, 1911. An old type of stone jail. The cells are dark and unsanitary. A cell has been built in one end of the corridor which is better ventilated and lighter than the main jail. There is seldom more than one prisoner at a time. The jail is fairly well kept.

Tippecanoe County Jail, LaFayette. Visited January 11, 1911. This jail is not suitable for the purpose it serves. All the cells on the east side open into one poorly lighted and poorly ventilated corridor. The air in these is bad. The bath on one side is in an unlighted and unventilated room. There is no provision for classification of prisoners. The walls are dingy and defaced. It is very difficult to keep the jail in good condition. A modern building should be erected.

Tipton County Jail, Tipton. Visited August 30, 1911. The jail is strong, but as now managed it is not safe. The prisoners are allowed to use the corridor outside of the cage. This is unnee-

essary, as the cage is well lighted and ventilated. The windows should have stronger screens if the outside corridor is used. The jail is well kept and if it was painted and the plumbing repaired it would be in first-class condition. The sheriff seems interested in his work.

Union County Jail, Liberty. Visited August 11, 1911. A good, strong jail, well kept. A bath tub is needed. The women are kept in the upper part of the main jail, where it is possible for them to talk to the men below. At the same time two rooms in the third story are rented out. It would be better to furnish these rooms for women prisoners, though a woman is not often received. Recently the sheriff's wife kept a woman criminal in the residence. This is unsafe.

Vanderburgh County Jail, Evansville. Visited June 30, 1911. This jail is strong, safe and well kept. Steam heat. The cleanliness of beds and bedding indicates special care. Rules are enforced and proper discipline is always possible. Not much classification is possible. The women's department is separate from the men's, though the women must pass through the men's corridor in going to their department. The plumbing is out of repair. The sanitary condition is very good.

Vermillion County Jail, Newport. Visited November 28, 1910. A good building, well kept, strong and safe. The water tank in the attic leaks badly and the water drips down to the first floor. Women are kept on the second floor. The prisoners are required to keep the jail clean. The cell for the insane should be padded. A man was recently injured by knocking his head against the iron door.

Vigo County Jail, Terre Haute. Visited September 6, 1911. This is an excellent jail and the administration is good. The building is new and all equipment is in good condition. There is ample opportunity for classification. It is unfortunate that the interior is painted a dark color. A matron is in charge of the women's department. There is a well-equipped hospital. A stone pile is maintained.

Wabash County Jail, Wabash. Visited August 25, 1911. Although not modern, this jail is strong and safe and fairly well kept. The walls are dingy and defaced. The women's part has not been cleaned since the last prisoner went out.

Warren County Jail, Williamsport. Visited April 28, 1911. A well built jail and well kept. Although small, it is adequate for the county. A bath tub or shower is needed in the women's de-

partment. The prisoners carry their meals into their cells and sit on the bunks while eating.

Warriek County Jail, Boonville. Visited July 7, 1911. Because of the absence of the sheriff it was not possible to see the cells, but that part of the jail seen was clean. An insane man has been confined here since December 27, 1905. Six prisoners escaped last winter by making an opening into another side of the jail, which was not locked. While a wall separates men from women prisoners, there are openings in it which enable them to talk to each other. Bath tubs and interior painting are needed and rules should be established.

Washington County Jail, Salem. Visited December 14, 1910. An old jail and small, but well kept and in good repair. Bath facilities and a heating plant should be added. The women's room was recently painted and is in excellent condition. The present sheriff, whose term expires soon, has been connected with the jail for twelve years, part of the time as deputy.

Wayne County Jail, Richmond. Visited January 9, and May 26, 1911. The jail is strong but the cells are not well ventilated. It is well kept. The present turnkey was at the city jail for two years. He seems interested in his work and understands disciplining the prisoners. The gas pipes are defective, the woodwork in the sheriff's residence needs varnishing, and rules should be established.

Women prisoners are kept in the Home for Friendless Women, where there is a jail department. This is very clean, strong, well ventilated and well kept. The corridor was recently painted. The prisoners are clean and neatly clothed and apparently well cared for.

Wells County Jail, Bluffton. Visited August 23, 1911. A strong and safe jail, well kept, with good light and ventilation. The interior has recently been painted. The men use the bath tub located in the women's quarters. A tub or shower should be installed in the main jail.

White County Jail, Monticello. Visited January 13, 1911. An old building, poorly ventilated and poorly equipped. The capacity is inadequate and there is no opportunity for classification. The officials do the best they can with the poor facilities. A new jail is needed. This building is not worth repairing.

Whitley County Jail, Columbia City. Visited March 22, 1911. An old type of jail with stone walls, cells and floors. The windows are high, consequently light and ventilation are poor. The jail is very well kept.

[illegible]

TABLE No. 2.

TOTAL NUMBER OF INMATES ADMITTED DURING YEAR ENDING SEPTEMBER 30, 1911.

COUNTIES	SERVED SENTENCE.				INSANE.				MISCELLANEOUS.			TRAMPS.			TOTAL.	
	Men.	Women.	Boys.	Girls.	Men.	Women.	Boys.	Girls.	Men.	Women.	Boys.	Girls.	Male.	Female.	Total.	Total.
Adams	63		4		2	1			73	1		1	143	3	146	
Allen	804	52	49	8	18	3			644	69			1,515	132	1,647	
Bartholomew	283	6	5	3	6	3							332	13	347	
Benton	5				1	2			23				40	2	42	
Blackford	111	5			2	1			111	5	2	4	240	15	255	
Boone	36								62	1	3		134	2	136	
Brown	3	1							1				6	1	7	
Carroll	13				1	1			50		2		66	1	67	
Cass	111	1	1		10				429	58	15	3	28	62	655	
Clark	283	25		4	9	4			182	13	13	13	11	59	557	
Clay	205	9	1	5	8	2			7				1	16	238	
Clinton	60	2			7				168	1			235	3	238	
Crawford	16				1				16				33		33	
Davless	103				6	1			218	19	3	5	232	25	357	
Dearborn	80	5	2		7				50				197	5	202	
Decatur	23				1				80	1			550	1	551	
DeKalb	73				5	3			34	2	3	1	115	6	121	
Delaware	196	14	3	2	14	3			246	16	4	3	463	38	501	
Dubois	50	1			5								55	1	56	
Elkhart	126	4			12	1			170	5	22	3	242	13	585	
Fayette	66	1			1				195				382	3	385	
Floyd	275	50	4	3	10	2			98	14	19		406	69	475	
Fountain	49				3				20				97		97	
Franklin	14				1				7				25		22	

THE COUNTY JAILS.

Fulton...	14	1		2		1	7	2	383	383	400
Gibson	123	16	3	14	20	325	30	15		132	8
Grant	318	2		11	1	45		8		747	71
Greene	121	2								185	3
Hamilton											
Hancock	46	1		4	2	48	3	7	22	127	6
Harrison	31			4	3	84	3	6	76	204	3
Hendricks	5			5	1	24	1	1		35	2
	13			1		32	1			47	1
Henry	303	4		5	1	298			113	719	5
Howard	65			3	1	56				124	1
Huntington	71	1		6		100		4	1	181	2
Jackson	215	4		2		27				244	4
Jasper	6			8		62			48	124	
Jay	66	1		7	1	16	1			89	3
Jefferson	83	3	2	8		56	2	6	1	195	6
Jennings	12			1		4	1		1	18	1
Johnson	41	1	4	1	1	42	2	1		110	4
Knox	482	14	5	3	3	393	32	7	318	1,210	55
Kosciusko	59						3	2	259	321	2
Lafayette	2			6		26	1	3		37	1
Lake	1,060	73		4	28	411	8			1,475	109
Laporte	159	22	3	25	9	72	6	7	29	285	42
Lawrence	104	10	23	6		231			28	394	11
Madison	331	8	3	18	5	417	18	12	8	1,067	39
Marion	978	190	24	56	15	2,100	430	117	4	3,275	641
Marion Workhouse	1,619					44				1,619	
Marshall	25			9		29			14	92	92
Martin	6			1					43	79	79
Miami	82	1	2	22		562		5	800	1,475	2
Monroe	213	1	3	3	3	423	16	4	99	745	23
Montgomery	57	3	15	1		117	4	7	143	340	8
Morgan	49	1		9		105			4	167	1
Newton	1		1	1	1					3	3
Noble	27			2	1	20	2	2	1	51	4
Ohio	17			1		1			11	30	3
Orange	6			5	2	29		5	2	47	49

TABLE No. 3.

TOTAL ADMISSIONS FOR VAGRANCY AND INTOXICATION FOR THE YEAR ENDING SEPTEMBER 30, 1911.

COUNTIES.	VAGRANCY.						INTOXICATION.						Total Admis- sions for Vagrancy and intox- ication.	Total Cost.
	Number.			Cost.			Number.			Cost.				
	Male.	Female.	Total.	Fees.	Board.	Total.	Male.	Female.	Total.	Fees.	Board.	Total.		
Adams.....	6		6	\$1 00	\$2 80	\$3 80	78	2	80	\$7 50	\$188 80	\$196 30	86	\$200 10
Allen.....	288	4	292	146 00	841 13	987 13	664	13	677	338 25	3,242 97	3,581 22	969	4,568 35
Bartholomew.....	6		6	3 00	5 20	8 20	205	1	206	32 50	541 80	574 30	212	552 50
Benton.....	10		10	5 00	8 00	13 00	11		11	3 00	33 20	36 20	21	49 20
Blackford.....	13		13	6 50	11 60	18 10	144	5	149	74 00	784 20	858 20	162	876 30
Boone.....	33	1	34	10 00	18 00	28 00	60		60	16 00	240 80	256 80	94	284 80
Brown.....														
Carroll.....	1		1	50	80	1 30	38		38	18 00	127 20	145 20	39	146 50
Cass.....	34		34	17 00	34 50	51 50	313	8	321	161 25	730 80	892 05	355	943 55
Clark.....	29		29	5 00	127 60	132 60	219	9	228	71 50	831 80	903 30	257	1,035 90
Clay.....	1		1		4 00	4 00	88		88	16 00	273 60	289 60	89	293 60
Clinton.....							115		115		244 40	244 40	115	244 40
Crawford.....	1		1		40	40	15		15	7 25	16 11	23 36	16	23 76
Davies.....	6		6	2 50	22 40	24 90	224	14	238	22 00	512 00	534 00	244	558 00
Dearborn.....	1		1	50	6 80	7 30	94	4	98	34 50	394 80	429 30	98	436 60
Decatur.....	446		446	223 00	190 40	413 40	87		87	42 25	153 20	195 45	533	608 85
DeKalb.....							9		9	4 75	137 20	141 95	9	141 95
Delaware.....	2		2	1 00	2 40	3 40	246	8	254	101 75	598 80	700 55	256	703 95
Dubois.....							27		27	7 50	82 00	89 50	27	89 50
Elkhart.....	72		72		80	80	155	1	156	31 75	436 40	468 15	228	468 95
Fayette.....	103		103	51 50	52 80	104 30	185		185	90 00	401 60	491 60	288	595 90
Floyd.....	3	1	4	2 00	7 60	9 60	178	17	195	67 75	965 80	1,033 55	199	1,043 15
Fountain.....							20		20	50	79 20	79 20	20	79 20
Franklin.....							8		8	3 65	19 60	22 25	8	22 25

Fulton.....	228	228	93 00	154 00	247 00	91	43 75	95 20	138 95	319	385 95
Gibson.....	62	20 00	257 60	277 60	62	277 60
Grant.....	4	4	2 00	7 60	9 60	447	11	140 50	1,449 60	1,590 10	462	1,599 70
Greene.....	96	47 75	546 40	594 15	96	594 15
Hamilton.....	18	18	4 00	37 20	41 20	39	2	6 50	85 20	91 70	59	132 90
Hancock.....	70	1	71	21 50	57 60	79 10	63	1	20 75	130 80	151 55	134	230 65
Harrison.....	15	7 50	21 20	29 70	15	29 70
Hendricks.....	19	3 75	57 20	60 95	19	60 95
Henry.....	122	122	28 00	103 20	131 20	441	6	62 75	1,462 20	1,524 95	569	1,656 15
Howard.....	67	1	12 25	279 50	291 75	688	291 75
Huntington.....	46	1	47	25 50	68 80	94 30	50	25 50	261 00	290 10	97	384 40
Jackson.....	114	1	55 25	390 00	445 25	115	445 25
Jasper.....	20	4 50	26 80	31 30	20	31 30
Jay.....	49	1	5 50	225 20	230 70	50	230 70
Jefferson.....	49	1	50	25 50	50 80	76 30	51	2	25 25	221 00	246 25	101	322 55
Jennings.....	2	1 00	5 20	6 20	2	6 20
Johnson.....	18	18	34 40	34 40	30	2	154 40	154 40	50	188 80
Knox.....	327	227	163 50	286 80	450 30	645	16	339 00	1,924 00	2,263 00	988	2,713 30
Kosciusko.....	262	262	130 75	106 40	237 15	81	40 00	132 80	172 80	343	409 95
Lagrange.....	11	1 00	19 20	20 20	11	20 20
Lake.....	23	23	11 75	152 80	164 55	282	13	147 50	1,442 60	1,590 10	318	1,754 65
Laporte.....	21	21	6 00	87 20	93 20	114	8	41 50	737 30	778 80	143	872 00
Lawrence.....	31	31	15 50	59 60	75 10	212	2	93 25	437 20	530 45	245	605 55
Madison.....	15	15	7 50	72 00	79 50	384	6	188 25	1,150 80	1,539 05	405	1,418 55
Marion.....	418	67	485	81 50	796 25	877 75	603	139	144 00	1,987 67	2,131 67	1,227	3,009 42
Marion Workhouse.....	40	40	562	602
Marshall.....	12	12	6 00	9 60	15 60	28	13 50	74 40	87 90	40	103 30
Martin.....	49	49	13 50	39 20	52 70	7	12 60	12 60	56	65 30
Miami.....	43	43	4 75	31 20	35 95	304	6	52 25	503 00	555 25	383	591 20
Monroe.....	125	125	29 00	114 20	143 20	422	2	201 00	698 80	899 80	549	1,043 30
Montgomery.....	133	1	134	32 25	109 40	141 65	124	6	27 50	512 20	539 70	264	681 35
Morgan.....	5	5	2 25	4 00	6 25	106	1	48 75	221 20	269 95	112	276 20
Newton.....
Noble.....	2 00	2 00	16	1 75	129 60	131 35	16	131 35
Ohio.....	10	1	11	14	7 00	25 60	32 60	25	34 60
Orange.....	12	6 00	30 80	36 80	12	36 80

TABLE No. 3—Continued.

COUNTIES.	VAGRANCY.					INTOXICATION.					Total Admis- sions for Vagrancy and Intox- ication.	Total Cost.		
	Number.			Cost.		Number.			Cost.					
	Male.	Female.	Total.	Fees.	Board.	Total.	Male.	Female.	Total.	Fees.			Board.	Total.
Owen	12		12		\$6 00		29		29	\$1 00	\$22 40	\$23 40	41	\$29 40
Parke	9	5	14		10 60		26		26	6 50	51 60	58 10	40	68 70
Perry	2		2		1 60		19	1	20	50	37 60	39 10	22	39 70
Pike							47		47	9 75	95 60	105 35	47	105 35
Porter	20		20	\$8 50	62 40	70 90	51		51	24 25	196 00	220 25	71	291 15
Posey	56		56	26 50	33 20	59 70	172	6	178	28 50	470 00	498 50	234	558 20
Pulaski														
Pulmon	11		11				45		45	23 75	78 00	101 75	56	101 75
Randolph							48		48	3 00	138 00	141 00	48	141 00
Ripley							2		2	1 00	6 80	7 80	2	7 80
Rush							86	1	87	8 00	155 80	163 80	87	163 80
Scott	1		1	50	4 40	4 90	14		14	7 00	23 60	30 60	15	35 50
Shelby	5		5	2 50	1 71	4 21	188	2	190	91 25	301 99	393 24	195	397 45
Spencer							7		7	3 50	7 20	10 70	7	10 70
Starke	7		7		18 00	18 00	4		4		12 80	12 80	11	30 80
Steuben	20		20	6 75	16 80	23 55	16		16	2 50	33 60	36 10	36	59 65
St. Joseph	76	2	78	37 25	140 40	177 65	1,003	15	1,018	477 75	3,004 60	3,482 35	1,096	3,660 00
Sullivan	292		292	147 00	240 80	387 80	145	3	148	73 25	404 40	477 65	440	865 45
Switzerland							13		13		17 98	17 98	13	17 98
Tippecanoe							280	4	284	39 75	1,148 40	1,188 15	284	1,188 15
Tipton	29		29	14 50	25 60	40 10	39		39	19 50	53 60	73 10	68	113 20
Union	14		14		4 40	4 40	9		9		9 60	9 60	23	14 00
Vanderburgh	5		5		35 60	35 60	369	39	408	17 00	2,915 55	2,932 55	413	2,968 15
Vermillion	20		20	8 50	16 00	24 50	25		25	4 50	86 80	91 30	45	115 80
Vigo	611		611		1,807 47	1,807 47	912	107	1,019		8,156 40	8,156 40	1,630	9,963 87
Wabash	5		5	2 50	3 20	5 70	173		173	78 50	234 00	312 50	178	312 50
Warren							10		10	4 75	16 80	21 55	10	21 55

Warwick.....	1	1	50	80	1 30	71	1	72	13 25	114 60	127 85	73	129 15
Washington.....	20	20	10 00	14 80	24 80	55	55	31 50	142 60	174 10	75	198 90
Wayne.....	26	26	8 00	160 00	168 00	248	257	68 50	1,788 60	1,857 10	283	2,025 10
Wells.....	3	3	50	1 60	2 10	27	27	5 00	74 80	79 80	30	81 90
White.....	3	3	1 25	12 40	13 65	3	13 65
Whitley.....	1	1	4 00	4 00	5	5	23 60	23 60	6	27 00
Totals.....	4,370	85	4,455	\$1,451 75	\$6,330 86	\$7,782 61	12,903	497	13,400	\$4,034 40	\$50,615 27	17,855	\$58,397 88

THE LICENSE DEPARTMENT.

Mr. Amos W. Butler, Secretary:

Dear Sir—A report of work done by the license department for the fiscal year ending September 30, 1911, is herewith submitted.

The purpose of this department is to carry out the provisions of the law of 1909 pertaining to the licensing of maternity hospital and children's agencies. The year's activities consisted of receiving and investigating applications, inspecting institutions, investigating complaints and unlicensed places coming under the law, and receiving and checking reports.

One hundred and forty applications for licenses have been investigated. This required inspection of the premises and investigation into the method of conducting the business to be licensed. We were aided in the investigations by public health and other officials, as well as by many individuals. This co-operation is greatly appreciated.

Each licensed institution was visited during the year one or more times. Assistance in the inspection of orphans' homes was given by W. S. Reynolds, State agent.

Numerous complaints concerning licensed institutions were investigated and visits were made to all who were brought to our notice as being engaged in the business defined in the license act, from whom applications had not been received.

All institutions and individuals affected by the law are required to keep accurate records, and certain of them must report daily and monthly to the Board of State Charities. These reports are checked and the data transferred to the card registration.

As will be noted from Table No. 1, which accompanies this report, the law provides for four kinds of licenses, viz., maternity hospital, boarding house for infants, boarding home for children, and placing agency.

1. *Maternity hospital licenses.* Fifty-seven maternity hospital licenses were granted this year. Only three were to *private* maternity homes. Two of these were surrendered later, leaving only one in operation at the close of the year. It is located in Fort Wayne. There is a striking contrast between these figures and those compiled in 1909, soon after the law went into effect.

when we found that there were seventeen private maternity homes in Indianapolis alone, and many others elsewhere.

Six maternity hospital licenses were issued to associations which are conducting work of a rescue nature, viz., Faith Home, Door of Hope of Indiana, and Flanner Guild (colored), located in Indianapolis; Home for Friendless, Evansville; Florence Crittenton Home, Terre Haute, and Home for Friendless, Richmond.

Forty-eight licenses to receive maternity cases were granted to general hospitals. Some of them have but few patients of this class. Thirty of these institutions are conducted by associations, most of which receive either public funds or private donations, or both, while eighteen are conducted solely for pecuniary gain. The Schneck Memorial Hospital, a gift of Mrs. Mary Schneck in memory of her husband, former State Senator, Louis Schneck, was opened at Seymour early in the year. The building was erected at a cost of \$15,000 and is modern in every particular. The furnishings, valued at more than \$8,000, were given by local organizations. Notable improvements have been made in other general hospitals.

2. *Boarding Houses for Infants.* Of the nine applications that were granted to boarding houses for infants, four were to private homes, two of which later went out of business, and five were to homes maintained by associations, as follows: Terre Haute Day Nursery Association and Fresh Air Mission, the Indianapolis Day Nursery Association, the Indianapolis Orphans' Asylum and the Evansville Home for Friendless.

3. *Boarding Homes for Children.* The law defines the term boarding home for children to mean "any children's home, orphanage or other institution, association, organization or individual engaged in receiving, caring for and finding homes for orphan, dependent and neglected children." There are fifty-six licensed institutions of this character in the State. Fifty-two licenses were granted during the year, three applications were pending September 30, and an application for renewal was received just after the close of the year. These institutions may be divided into three classes: (1) those caring for children legally made public wards and supported by public funds; (2) the detention or temporary homes; (3) the private orphans' homes.

The thirty-seven homes which receive public wards are described in the report of the State agent.

There are four institutions of the second class: The Marion

County Juvenile Detention Home, Indianapolis, owned and maintained by the county, cares for children whose cases are pending in court. The Woman's Christian Home (Martha Home) at Lafayette and the Home for Friendless in Richmond, serve as detention homes, while the Friendly Inn, at Terre Haute, cares for emergency cases.

Fifteen homes are included in the third class. Two of this number are for boys and four are for girls, while nine receive both boys and girls. A brief description of these homes follows:

St. Vincent's Orphan Asylum for Girls, Fort Wayne, and St. Joseph's Manual Labor School for Boys, located near Lafayette, are Catholic institutions under the supervision of the Bishop of the Fort Wayne diocese. These institutions are well equipped and are conducted in a commendable manner. When visited, there were 101 boys and 114 girls present.

St. Vincent's Orphan Asylum for Boys, located three miles south of Vincennes, and St. Ann's Orphan Asylum for Girls, at Terre Haute, two of the oldest institutions in the State, are conducted by the Sisters of Providence and belong to the Indianapolis diocese. The commodious buildings of the former institution are beautifully situated on a farm of three hundred and fifty acres. Boys remain here until 12 or 14 years of age. While the buildings at St. Ann's Asylum are old, they are in excellent repair, adequately equipped and well kept. Girls are retained in this home until about 12 years of age, when they are returned to parents or relatives or transferred to St. Joseph's Training School for Girls at Indianapolis, also maintained by the Sisters of Providence. The latter home keeps its inmates until they are capable of caring for themselves. It has two departments, one for orphan girls and another for boarders.

The inmates of the home maintained by the Sisters of the Good Shepherd, in Indianapolis, are divided into three classes, viz., the Magdalen, Reformation and Preservation. It is the presence of the latter class which makes it necessary for the home to be licensed. It is composed of orphans and girls who are innocent of bad conduct. The three groups are entirely separated. These six Catholic institutions when visited had a total population of 492—198 boys and 294 girls.

The Rose Orphan Home, at Terre Haute, endowed by Chauncey Rose, ranks among the best of the children's institutions in the State because of its equipment and excellent administration. It

is also one of the most active in placing children in family homes. Capacity, 90; population, 75—48 boys and 27 girls.

The I. O. O. F. Home, situated near Greensburg, is connected with the home for widows and indigent aged men and women of the order. However, the children's department is separate from that of the adults. The children receive excellent care. The child must be released by the parent or guardian before it is admitted to the home, but the board agrees to retain the child in the institution for a period of two years, at the end of which it is placed in a family home if the relatives are not prepared to provide for it properly. Since the opening of this home, about twelve years ago, one hundred sixty-five children have been admitted. Fifty of this number were placed in family homes and sixty-nine were returned to parents.

The Collett Home for Orphans, at Cayuga, Vermillion County, was opened in 1902. It is maintained by an endowment fund, the gift of John and Joseph Collett. According to the provisions of the bequest, only children whose parents have legal residence in Vermillion County are received; no child can be admitted if both its parents are living or if it is physically or mentally defective. This restriction excludes the legal dependents of that county. It has a capacity of twenty-five children, but there are only eleven at present. The rule is to retain the children in the home until they are 18 years of age, or capable of caring for themselves. There has been no change in the population during the year.

Another of the newer institutions for children is the Crawford Baptist Industrial Home, at Zionsville, Boone County. It is supported by the various Baptist churches. Boys and girls under 12 years of age are admitted, preference being given to destitute children of Baptist parentage. It is conducted on the cottage plan. Children are placed in family homes.

The Fort Wayne Orphan Home of the Reformed Church of the United States is the property of three German synods of the Reformed Church, while English synods offer no little amount to its support. The property will aggregate in value to \$200,000. It is conducted on the cottage plan. Children are retained until 18 years of age. The population July 14, 1911, was 85—43 boys and 42 girls.

Another institution that holds its children until 18 years of age is the Werale Orphans' Home, at Richmond, Wayne County. It was established in 1879 and is controlled and supported by the

Ohio synod of the Lutheran Church. A new building with all modern conveniences was erected in 1909. Population, 69—37 boys and 32 girls.

The German Lutheran Orphans' Home, Indianapolis, is also controlled and maintained by the Lutheran Church. Girls are held until 18 years of age, while boys are placed on wages, preferably in Lutheran homes, at an earlier age. Capacity 50; population, 25 boys and 25 girls.

The Aged Persons' Home and Orphan Asylum, situated near Honey Creek, Henry County, is under the management of the German Baptist Church of the Southern District of Indiana. It is only fairly equipped for the care of children. The home as it now is operated comes under the head of a private boarding home rather than an orphans' asylum. Most of the children in its care are boarded by parents or relatives.

The Pentecost Orphanage, in Hendricks County, is owned and controlled by the Pentecost Bands of the World. There is a large farm in connection with the institution. Children are not placed in family homes.

The fifteen private institutions above mentioned, had, when visited, a total population of 890.

4. *Placing Agencies.* Six licenses to place infants in foster homes were granted this year as follows: Childrens' Home Society of Indiana, Indianapolis; Lutheran Kinderfreund Society, with headquarters in Fort Wayne; Door of Hope of Indiana, Indianapolis; Mrs. J. V. MacMillan,* Fort Wayne, and Home for Friendless, Evansville. The three latter place only the infants that are born in their respective institutions.

Thirteen applications were pending at our last report and 127, fourteen of which are new, were received during the year. Altogether 140 applications were considered. Of this number 124 were granted, seven were rejected, two were withdrawn and seven were pending at the close of the year. Ten licenses were voluntarily surrendered.

On September 30, 1911, 124 licenses were in force. They were held by 117 individuals or associations, five of whom held two each and one held three. Fifty-six of the licenses were for boarding homes for children, the same number were for maternity hospitals, seven were for boarding houses for infants and five for placing agencies.

*Mrs. McMillan moved to a new location and consequently received two licenses during the year.

Table No. 1, which follows, shows the work of the inspector for the year so far as it can be shown in figures. Table No. 2, by counties, shows the applications received and granted.

I desire to thank you, and through you, the Board of State Charities for the kindness shown me in many ways; also to express my appreciation of the services of the clerks and all who have assisted in the work of the department.

Respectfully,

S. ETHEL CLARK,
Inspector.

TABLE No. 1.

APPLICATIONS AND LICENSES.

	Maternity Hospital.	Boarding House for Infants.	Boarding Home for Children.	Placing Agencies.	Total Ap- plications.	Number of Applicants.
Applications pending last report.....	5	4	1	3	13	11
Applications Received—						
New.....	9	3	1	1	14	} 120
Renewals.....	48	7	53	3	111	
New locations.....	1			1	2	
Total.....	63	14	55	8	140	131
Licenses Granted—						
New.....	8	2	1	2	13	} 131
Renewals.....	48	7	51	3	109	
New locations.....	1			1	2	
Applications—						
Rejected.....	2	4		1	7	} 131
Withdrawn.....		1		1	2	
Pending.....	4		3		7	
Total.....	63	14	55	8	140	131
Licenses voluntarily sur- rendered.....	5	3	2		10	8
Licenses revoked.....						

SUMMARY OF INSPECTOR'S WORK.

Visits made in investigating applications.....	146
Other visits.....	191
Specials: Interviews with public officials and others.....	186
Visits to licensed institutions.....	74
Transfers—	
Mothers to other counties.....	...
Children to other counties.....	...
Mothers to other states.....	...
Children to other states.....	...
Total items of work.....	597
Days in field.....	158
Days in office.....	100

TABLE No. 2.

APPLICATIONS FOR LICENSES.

COUNTIES.	Maternity Hospitals.		Boarding House for Infants.		Boarding Home for Children.		Placing Agency.		Total.	
	Received.	Granted.	Received.	Granted.	Received.	Granted.	Received.	Granted.	Received.	Granted.
Allen.....	4	4	2	1	3	3	3	3	12	11
Bartholomew.....	1	1			1	1			2	2
Boone.....	1	1			1	1			2	1
Cass.....					1	1			1	1
Clark.....	2	2			1	1			3	3
Clay.....					1	1			1	1
Clinton.....	1	1							1	1
Decatur.....					1	1			1	1
Delaware.....	2	2			1	1			3	3
Elkhart.....	2	1							2	1
Fayette.....		1								1
Floyd.....					1	1			1	1
Franklin.....					1	1			1	1
Fulton.....	1	1							1	1
Gibson.....					1	1			1	1
Grant.....	1	1			1				2	1
Hamilton.....	1	1							1	1
Hendricks.....					2	2			2	2
Henry.....	2	2				1			2	3
Jackson.....	1	1							1	1
Jay.....	2	2							2	2
Jefferson.....	2	2			1	1			3	3
Johnson.....					1	1			1	1
Knox.....	1	1			2	2			3	3
Lagrange.....					1	1			1	1
Lake.....	1	1							1	1
Lawrence.....	1	1							1	1
Madison.....	2	2			1	1			3	3
Marion.....	11	10	6	5	8	8	2	2	27	25
Marshall.....					1	1			1	1
Miami.....					1	1			1	1
Monroe.....	1	1							1	1
Montgomery.....	1	1			1	1			2	2
Pike.....					1	1			1	1
Porter.....	1	1							1	1
Randolph.....					1	1			1	1
Shelby.....					1	1			1	1
Spencer.....					1	1			1	1
Steuben.....	1	2							1	2
St. Joseph.....	2	2			1	1			3	3
Tippecanoe.....	2	2			3	3			5	5
Vanderburgh.....	6	5		1	3	3		1	9	10
Vermillion.....					1	1			1	1
Vigo.....	2	2	2	2	4	4			8	8
Wabash.....	1	1			1	1			2	2
Warrick.....					1	1			1	1
Wayne.....	2	2			2	2			4	4
Wells.....					1				1	
Total.....	58	57	10	9	54	52	5	6	127	124

LICENSES ISSUED DURING YEAR ENDING SEPTEMBER 30, 1911.

1910.

- Oct. 18. Epworth Hospital, 604 North Main Street, South Bend. Maternity Hospital.
- Oct. 18. Christian Hospital and Training School for Nurses, 106 East Jefferson Street, Valparaiso. Maternity Hospital.
- Oct. 18. Miss Marie Sahli (Fayette Sanitarium), 1941 Virginia Avenue, Connersville. Maternity Hospital.
- Oct. 18. Woman's Christian Home, 515 Alabama Street, Lafayette. Boarding Home for Children (temporary).
- Oct. 18. Dr. H. D. Wood, Euclid and Gale Streets, Angola. Maternity Hospital.
- Oct. 25. Clay County Orphans' Home, Knightsville. Boarding Home for Children.
- Oct. 25. The I. O. O. F. Home, Greensburg. Boarding Home for Children.
- Nov. 7. Montgomery County Orphans' Home, Crawfordsville. Boarding Home for Children.
- Nov. 7. The Home for the Friendless, 2215 Fulton Avenue, Evansville. Placing Agency.
- Nov. 7. The Home for the Friendless, 2215 Fulton Avenue, Evansville. Boarding House for Infants.
- Nov. 7. Children's Home Society of Indiana, 152 East Market Street, Indianapolis. Placing Agency.
- Nov. 28. Franklin County Orphans' Home, Brookville. Boarding Home for Children.
- Dec. 6. Collett Home for Orphans, two miles south of Cayuga. Boarding Home for Children.
- Dec. 6. Faith Home, 1220 College Avenue, Indianapolis. Maternity Hospital.

1911.

- Jan. 4. The Door of Hope of Indiana, 1260 Chicago Street, Indianapolis. Maternity Hospital; Placing Agency.
- Jan. 4. Mrs. J. V. MacMillan, 1415 Calhoun Street, Fort Wayne. Maternity Hospital. Relicensed for new location August 28, 1911.
- Jan. 14. Provident Hospital, Pennville. Maternity Hospital.
- Jan. 14. Doctor Mix Hospital Association, 307 East Charles Street, Muncie. Maternity Hospital.
- Jan. 14. Dr. Joseph H. Ward, 722 Indiana Avenue, Indianapolis. Maternity Hospital.
- Jan. 14. Lincoln Hospital Association, 1101 North Senate Avenue, Indianapolis. Maternity Hospital.
- Jan. 14. Marion County Juvenile Detention Home, 28 West North Street, Indianapolis. Boarding Home for Children.
- Jan. 14. Sisters of the Good Shepherd, 111 West Raymond Street, Indianapolis. Boarding Home for Children.
- Jan. 19. Wabash Valley Sanitarium, three miles north of Lafayette. Maternity Hospital.
- Jan. 19. Pentecost Bands of the World, R. R. 22, Bridgeport. Boarding Home for Children.

- Jan. 31. Wabash County Hospital, 770 West Hill Street. Wabash. Maternity Hospital.
- Jan. 31. Aged Persons' Home and Orphan Asylum, Honey Creek. Boarding Home for Children.
- Feb. 20. Misses Rella and Mabel Files, corner Maumee and Kinney Streets, Angola. Maternity Hospital.
- Mar. 9. Columbus Hospital, 722-724 Fifth Street. Columbus. Maternity Hospital.
- Mar. 9. Jay County Hospital, Portland. Maternity Hospital.
- Mar. 9. Mrs. Minnie Jones, 23 North Addison Street, Indianapolis. Boarding House for Infants.
- Mar. 9. Mrs. J. V. MacMillan, 1415 Calhoun Street, Fort Wayne. Placing Agency. Relicensed for new location August 28, 1911.
- Mar. 21. Mrs. A. W. King and P. Sparks (Woodlawn Hospital), 624 Pontiac Street, Rochester. Maternity Hospital.
- Apr. 24. Q. Robert Hauss, New Albany Street, Sellersburg. Maternity Hospital.
- Apr. 24. Schneck Memorial Hospital, Bruce and Poplar Streets, Seymour. Maternity Hospital.
- May 8. Mercy Hospital, 634 Carolina Street, Gary. Maternity Hospital.
- May 22. French Orphans' Home, Patoka. Boarding Home for Children.
- May 22. Knox County Orphans' Home, Fairground Avenue, Vincennes. Boarding Home for Children.
- May 22. Thornton Pike County Orphans' Home Association, Petersburg. Boarding Home for Children.
- May 22. Bedford City Hospital, 23d and P Streets, Bedford. Maternity Hospital.
- May 22. Dr. Frank M. Fitch and Dr. Emma Collup Fitch, 725 North Illinois Street, Indianapolis. Maternity Hospital.
- May 22. Indianapolis City Hospital, 1000 Coe Street, Indianapolis. Maternity Hospital.
- May 22. Marion County Board of Children's Guardians, 5751 University Avenue, Irvington. Boarding Home for Children.
- May 22. The Indianapolis Home for Friendless Colored Children, 319 West Twenty-first Street, Indianapolis. Boarding Home for Children.
- May 26. James A. Stafford, M. D., 210 South Main Street, New Castle. Maternity Hospital.
- May 26. Mrs. Mollie Ward Butler, 825 South Eleventh Street, New Castle. Maternity Hospital.
- June 21. St. Vincent's Orphan Asylum for Boys, three miles south of Vincennes. Boarding Home for Children.
- June 21. Terre Haute Day Nursery Association, 408 North Fourth Street, Terre Haute. Boarding House for Infants.
- June 21. The Evangelical Lutherische Waisengesell, 3310 East Washington Street, Indianapolis. Boarding Home for Children.
- June 21. Friendly Inn, 912-914 Chestnut Street, Terre Haute. Boarding Home for Children (temporary).
- June 21. St. Joseph's Training School for Orphan Girls, 725 South Alabama Street, Indianapolis. Boarding Home for Children.

- June 21. Indianapolis Day Nursery Association, 518 West Vermont Street, Indianapolis. Boarding House for Infants.
- June 21. Fresh Air Mission, Stop 7, Paris Interurban Line, Terre Haute. Boarding House for Infants.
- June 21. Bethany Circle of King's Daughters, 112 West Presbyterian Avenue, Madison. Maternity Hospital.
- June 21. Bloomington Hospital, First and Rogers Streets, Bloomington. Maternity Hospital.
- June 21. Lafayette Home Hospital, 2402 South Street, Lafayette. Maternity Hospital.
- June 21. Florence Crittenton Home, 1923 Poplar Street, Terre Haute. Maternity Hospital.
- June 21. Frances Comfort Thomas Orphans' Home, Columbus. Boarding Home for Children.
- June 21. Jefferson County Orphans' Home, 707 East Main Street, Madison. Boarding Home for Children.
- June 21. Children's Home Association, 2515 Columbus Avenue, Anderson. Boarding Home for Children.
- June 21. St. Ann's Orphan Asylum for Girls, Thirteenth Street and Fifth Avenue, Terre Haute. Boarding Home for Children.
- June 21. Vigo County Board of Children's Guardians, six miles east of Terre Haute. Boarding Home for Children.
- June 21. Good Samaritan Hospital, Seventh and Dubois Streets, Vincennes. Maternity Hospital.
- June 21. Union Hospital, 1606 North Seventh Street, Terre Haute. Maternity Hospital.
- June 24. Denny Sanatorium, 601 North Jefferson Street, Madison. Maternity Hospital.
- June 24. Children's Home Society of Indiana, Hadley. Boarding Home for Children.
- July 22. Allen County Orphans' Home, Bluffton Road, Fort Wayne. Boarding Home for Children.
- July 22. James Moorman Orphans' Home, two miles west of Winchester. Boarding Home for Children.
- July 22. Mrs Lizzie Stetter, 1102 Swinney Avenue, Fort Wayne. Boarding House for Infants.
- July 22. Fort Wayne Lutheran Hospital, Fairfield and Wildwood Avenues, Fort Wayne. Maternity Hospital.
- July 22. Flanner Guild, 851 Colton Street, Indianapolis. Maternity Hospital.
- July 22. L. L. Culver Union Hospital, Whitlock Place, Crawfordsville. Maternity Hospital.
- July 22. Clark Hospital, 126 Clark Street, Elkhart. Maternity Hospital.
- July 22. The Home for the Friendless, 2215 Fulton Avenue, Evansville. Maternity Hospital.
- July 22. St. Mary's Hospital, 1113 First Avenue, Evansville. Maternity Hospital.
- July 22. Evansville Sanatorium, 712-714 Upper Fourth Street, Evansville. Maternity Hospital.
- July 22. Crescent Sanatorium, 20 Walnut Street, Evansville. Maternity Hospital.

- July 22. Protestant Deaconess Hospital, 604 Mary Street, Evansville. Maternity Hospital.
- July 22. St. John's Hospital, Jackson Street, Anderson. Maternity Hospital.
- July 22. Home for Friendless Women, 306 South Tenth Street, Richmond. Maternity Hospital; Boarding Home for Children (temporary).
- July 22. The Fort Wayne Orphans' Home of the Reformed Church of the United States, two and one-half miles northeast of Fort Wayne. Boarding Home for Children.
- July 22. Delaware County Orphans' Home Association, two miles west of Muncie. Boarding Home for Children.
- July 22. St. Vincent's Orphan Asylum for Girls, Wells Street, Fort Wayne. Boarding Home for Children.
- July 22. The Rose Orphan Home, 2500 Wabash Avenue, Terre Haute. Boarding Home for Children.
- July 22. Vanderburgh County Board of Children's Guardians, corner Lincoln and McCormick Avenues, Evansville. Boarding Home for Children.
- July 22. Warrick County Orphans' Home Association, Boonville. Boarding Home for Children.
- July 22. St. Joseph's Orphans Manual Labor School, one mile south of Lafayette. Boarding Home for Children.
- July 22. Tippecanoe County Children's Home, 1132 North Tenth Street, Lafayette. Boarding Home for Children.
- July 22. Hope Hospital, Barr and Washington Streets, Fort Wayne. Maternity Hospital.
- July 22. Home Hospital, Adams and Mulberry Streets, Muncie. Maternity Hospital.
- July 22. Evansville Orphans' Home (white), Evansville. Boarding Home for Children.
- July 22. Evansville Orphans' Home (colored), Evansville. Boarding Home for Children.
- July 22. The Julia E. Work Training School, one and one-half miles north of Plymouth. Boarding Home for Children.
- July 22. Indianapolis Orphans' Asylum, 4107 East Washington Street, Indianapolis. Boarding Home for Children.
- July 22. Indianapolis Orphans' Asylum, 4107 East Washington Street, Indianapolis. Boarding House for Infants.
- July 22. White's Manual Labor Institute, four miles south of Wabash. Boarding Home for Children.
- Aug. 2. Grant County Hospital Association, Twentieth and Washington Streets, Marion. Maternity Hospital.
- Aug. 2. The Methodist Episcopal Hospital and Deaconess Home of the State of Indiana, Sixteenth Street and Capitol Avenue, Indianapolis. Maternity Hospital.
- Aug. 2. St. Vincent's Hospital, Delaware and South Streets, Indianapolis. Maternity Hospital.
- Aug. 2. Evangelical Lutheran Kinderfreund Society, 2322 Broadway Fort Wayne. Placing Agency.

- Aug. 2. German General Protestant Orphans' Association, State and Nebraska Streets, Indianapolis. Boarding Home for Children.
- Aug. 9. St. Joseph Hospital, Notre Dame and Cedar Streets, South Bend. Maternity Hospital.
- Aug. 9. Children's Aid Society, Mishawaka. Boarding Home for Children.
- Aug. 9. Roger Orphans' Home, seven miles southwest of Lagrange. Boarding Home for Children.
- Aug. 9. German Baptist Orphans' Home, Mexico. Boarding Home for Children.
- Aug. 9. Orphans' Home Association, Pleasant Hill, Logansport. Boarding Home for Children.
- Aug. 9. Mrs. Goldyn Grigsby, Stop 9, Martinsville Line, Valley Mills. Boarding House for Infants. License voluntarily surrendered September 1, 1911.
- Aug. 9. Jeffersonville City Hospital, 415 East Front Street, Jeffersonville. Maternity Hospital.
- Aug. 15. William P. Schuster, 1553 Southeastern Avenue, Indianapolis. Maternity Hospital; Boarding House for Infants. License voluntarily surrendered September 25, 1911.
- Aug. 28. Mrs. J. V. MacMillan, 824 North Lafayette Street, Fort Wayne. Maternity Hospital.
- Aug. 28. Mrs. J. V. MacMillan, 824 North Lafayette Street, Fort Wayne. Placing Agency.
- Sept. 5. The Williams Hospital, 117 South East Street, Lebanon. Maternity Hospital.
- Sept. 5. Dr. R. F. Palmer, Clinton and Columbia Streets, Frankfort. Maternity Hospital.
- Sept. 5. Dr. L. F. Schmauss, 626 West Broadway, Alexandria. Maternity Hospital.
- Sept. 5. Harrell Hospital, North Ninth Street, Noblesville. Maternity Hospital.
- Sept. 5. Gordon Children's Home, Shelbyville. Boarding Home for Children.
- Sept. 5. Johnson County Orphans' Home, three and one-half miles west of Franklin. Boarding Home for Children.
- Sept. 5. Veatch Orphans' Home, Rockport. Boarding Home for Children.
- Sept. 5. Jeffersonville Orphans' Home, 832 Meiggs Avenue, Jeffersonville. Boarding Home for Children.
- Sept. 12. Reid Memorial Hospital, Richmond. Maternity Hospital.
- Sept. 12. Wernle Orphans' Home, one and one-half miles southeast of Richmond. Boarding Home for Children.
- Sept. 18. Cornelia Memorial Orphans' Home, 1801 Ekin Avenue, New Albany. Boarding Home for Children.

REPORT OF THE STATE AGENT.

Mr. Amos W. Butler, Secretary:

Dear Sir—I am pleased to submit the report of the State Agency for the fiscal year ending September 30, 1911.

There are in Indiana thirty-seven institutions caring for dependent and neglected children who are wards of juvenile courts, boards of children's guardians or county commissioners. Thirty-two counties in the State have such children's homes within their borders. In addition to making the regular annual inspection, agents of the Board of State Charities have visited these institutions many times during the year.

Under the present system it is well to divide these homes into three classes, upon the basis of ownership, maintenance and management. The first class consists of institutions owned, managed and maintained by the county, the board of county commissioners having complete control. This board employs the matron and from appropriations set aside for the purpose by the county council, bears all the expense of maintenance, medical care and repairs. The second class of children's homes is owned by the county but managed by an individual or a properly organized association. Such individual or association receives a per diem allowance for each child in the institution from the county of which the child is a legal ward. This per diem must cover the care, education, placement in family homes and after-supervision of all children. In addition to this per diem, county commissioners may allow expenditures for the repairs on property. The third class consists of institutions owned, maintained and managed by an individual or an association properly organized for receiving and caring for dependent and neglected children. Such institutions receive a per diem allowance for each child legally committed to their care. This per diem must cover all expenses in the care, education and placing in family homes of the children. In no case must the per diem exceed 35 cents per capita.

As is well known, the agency of the Board of State Charities was organized for the purpose of placing in family homes children who are public wards and of supervising all children placed by any of the above mentioned classes of institutions. It has been operating for the past fourteen years. Not only has it increased

in its capacity but it has gradually gained the support of almost all the institutions and agencies with which it has a legal co-operation. The opposition of a few institutions, at one time quite noticeable, has in all practical regard passed away. This harmony makes possible good work in placing and supervising children.

The children's homes present different standards and degrees of efficiency and equipment. At the time of inspection their population ranged from 5 in the Lagrange County Orphans' Home to 187 in White's Manual Labor Institute, at Wabash. The law for the commitment of children to homes, to be supported by public funds, is becoming so generally understood that at present we know of no county in which the children are not properly committed. These thirty-seven institutions are all doing the same work. It is true, however, that all classes of children find their way into the institutions. Under the present law a judge has his choice of sending a delinquent boy or girl to either the children's home or the State institution for delinquent boys or delinquent girls. This provision has been very popular with many juvenile court judges, and as a result many delinquent children have been sent to the children's homes. These children mingle indiscriminately with normal dependent and neglected children. There is no attempt to classify them. In some of the smaller homes even sex separation is poorly arranged for.

Because of their large capacity and farm facilities White's Manual Labor Institute, Wabash, and the Julia E. Work Training School, Plymouth, are receiving a large per cent. of delinquent children from various juvenile courts in the State. They also receive normal dependent children. Yet neither institution is equipped to render special service for the class of children received. There is no scientific study of individual cases. There is no provision for the special medical attention and treatment so essential in an institution receiving children physically defective. We often encounter these cases in foster homes when slight but prompt medical aid would and should have relieved the condition while the child was in the institution. There is no attempt at classification further than age and sex. This is unfortunate, since special care and training is very necessary in such institutions. To a greater or less degree the same thing is true of all the children's homes in the State.

At the time of the inspection of these thirty-seven institutions, twenty-three crippled children and ninety-three feeble-minded chil-

dren were present. The crippled children should be given hospital treatment and the feeble-minded children should be removed. The latter receive no special care and training and it is a detriment to the normal child to associate with them.

Although the law provides and demands that the children's homes find family homes for their wards and visit them afterward, very few institutions provide especially for this work. The Indianapolis Orphans' Asylum, the Vigo, Vanderburgh and Marion county boards of children's guardians, the Delaware County Children's Home and the Children's Home Society of Indiana are the only institutions which have a placing agent. The smaller orphans' homes, especially those owned and maintained by the counties, make practically no effort to place their children out. The Julia E. Work Training School and White's Manual Labor Institute, whose field is the largest in the State because of the patronage of many counties, at present make no effort along this line.

As to the material conditions of the children's institutions in Indiana, it may be said that they are with very few exceptions clean, sanitary and well managed. They look after the physical welfare of the children so far as food and clothing are concerned. Very few improvements have been made in the buildings this year. A dairy barn of extensive size and equipment has been erected at the White's Manual Labor Institute, at Wabash, at an expense of \$3,000. Some changes have occurred in the management of the homes. Mrs. Jennie Porter Pfeifer, the matron of the Grant County Orphans' Home, Marion, died during the past fiscal year. Mrs. Pfeifer was a woman of extensive experience in her work and rendered valuable service. She was succeeded by Miss Anna Fleming, formerly of the Soldiers' and Sailors' Orphans' Home at Knightstown. In the death of Mrs. Ella Bundy, matron of the Henry and Rush County Orphans' Home, the State lost a valuable worker. The matronship of this institution was given to Miss Cora Shelley, of Spiceland. Sumner W. Haynes, superintendent of the Children's Home Society of Indiana, resigned that position and was succeeded by J. L. Peetz, November, 1910. The superintendent of the receiving home of that society, Calvin Carey, also resigned and the superintendency was given to Sherman Grigsby. Mrs. Mary F. Atwood, who for ten years had been matron of the Johnson County Orphans' Home, at Franklin, retired from that position September 1, 1911. Mrs. Royal Logan has been appointed matron of the institution. Mrs. Atwood

was an excellent matron and rendered valuable assistance in placing the children in family homes. Mr. and Mrs. James Moorman, who for some time had been superintendent and matron of White's Manual Labor Institute, at Wabash, resigned their positions and were succeeded February 1, 1911, by Mr. and Mrs. Llewellyn Harkness. Mr. and Mrs. Harkness have had long experience in the institution and should be very successful. Changes in the matronship of the following institutions have also taken place: The Mishawaka Children's Home, Vanderburgh County White Orphans' Home and the homes in Warrick, Wells and Lagrange counties.

The following summary is submitted in regard to the system in this State: There are thirty-seven children's homes, each receiving all classes of children. No institution is doing any special work. Among the children received are many needing special study and treatment. It is practically impossible for a small institution to equip itself to meet all the problems before it. Therefore the training of the children is not satisfactory. The mingling of all classes, normal and abnormal, is very unwise. The placing of children in family homes and their proper after-supervision by the institutions is also neglected.

Much interest in child welfare is manifested by the circuit judges throughout the State. However, more consideration is needed. The judges of sixty-nine counties have appointed boards of children's guardians. The influence and authority of these boards have a wholesome effect in neglected homes and in the proper disposition of cases demanding legal action. It is to be hoped that all judges will fully appreciate the value of their work and that similar boards will be appointed for the remaining twenty-three counties.

The State Agency during the year has been composed of J. August Brown, Miss Mary Carmichael, Miss Leila M. Thomas, Miss Mabel C. Atwood and Miss Nell W. Dunkle. These agents have rendered faithful and conscientious service. About September 1st Miss Leila M. Thomas accepted a position with the Children's Home Society of North Dakota, and left us. She had been a member of the agency force for eight years. Her ability in this work was marked, and we regret very much to lose her. For the faithfulness of the agents I wish to express my appreciation and to Miss Grace P. Hargitt and Miss Eleanor Hermann my thanks for their assistance with the clerical work of this department.

TABLES.

The tables which follow are based on the monthly reports of the orphans' homes and the weekly reports of the agents.

Table 1 shows the work of the agents for the twelve months ending September 30, 1911. The agents spent a total of 1,358 days in the field during the year, visiting children, investigating applications, placing children in homes, inspecting orphan asylums and conferring with public officials. Eighteen hundred and thirty-eight children were visited, and of these 1,674, or 91 per cent., were found doing well or fairly well. The remaining 164, or 9 per cent., were found in unsatisfactory condition, and proper action was taken in each case looking to the return of the child to the agency responsible for it. One hundred and eighty other visits were made to addresses given, without finding the children reported. During the twelve months homes were found for 248 children who had not previously been placed by the agents, and 173 children, formerly placed, were transferred to other homes, making a total of 421 placements and replacements. One hundred and twenty-five children were returned to counties. The applications investigated numbered 529, and all but 105 of these, or 20 per cent., were approved. The visits to the various orphan asylums numbered 326, to the county poor asylums 6, to boards of county commissioners 16. Special items of work not coming under any of the classifications given numbered 847. These included investigations into complaints, reports of alleged mistreatment, visits to interested citizens and officials.

The above constitutes the field work of the department, and its cost, including the salaries of the agents while engaged therein, amounted to \$8,881.31. The balance of the year's expenditures, amounting to \$3,617.12, shows the cost of the office work, stationery, postage, etc. The traveling expenses of the children placed by the agents, paid by the counties, amounted to \$910.72, making the total cost of the agency field work \$9,792.03.

Table 2 shows the placement of children in family homes by the State agency since the department was created, April 1, 1897. In addition to visiting children in family homes, and in a general way supervising the work of the orphans' home associations, the agency has found time, in the fourteen and one-half years of its existence, to place 2,498 children, and it is gratifying to know that 1,954, or 78.2 per cent., of them have remained off public support. The results achieved are seen in the following statement:

Total number of children received.....	2,498
In family homes:	
Subject to visitation	849
Adopted	73
Over age	284
Over age and self-supporting.....	236
Ran away	219
Married	80
Died	34
With parents	153
In institutions other than orphans' homes.....	26
	<hr/>
Total	1,954
Returned to counties	544
	<hr/>
Total	2,498

In this table will be found also the figures indicating the number of children supported by each county in an orphans' home on September 30, 1911.

Table 3 shows the movement of population in the orphans' homes. The figures refer only to public wards. At the beginning of the year there were 1,570 public wards in the different orphans' homes in the State. In the twelve months just closed 921 children not previously on public support have been received, and 380 former wards have been readmitted, making a total of 2,871 children handled during the year. These are accounted for as follows:

In family homes:	
Placed by the State agents.....	235
Placed by the associations.....	524
	<hr/>
Total	759
Returned to parents:	
By the State agents	20
By the associations	223
	<hr/>
Total	243
Transferred to institutions other than orphans' homes.....	210
In family homes, adopted	26
Over age and self-supporting	24
Ran away or kidnaped	16
Died	33
	<hr/>
Total	1,311
In orphans' homes September 30, 1911.....	1,560
	<hr/>
Total	2,871

Table 4 shows the work of the orphans' home associations during the past five years and the children in family homes subject to visitation. This table indicates the activity of the different associations in the matter of placing children in family homes. The number of children restored to parents is also given. It will be found as heretofore that some of the associations have been quite active and that others did very little. Taking into consideration the whole number of children handled by the different orphans' homes during the year, as shown by Table 3, it is found that the associations placed but 26.9 per cent. of their children in homes. Not all so placed remained off public support, it having been found necessary in some cases to return the children to the asylum. Three hundred and forty children were restored to parents during the year. This is equal to 12 per cent. of the whole number in orphans' homes in the twelve months.

The second part of Table 4 indicates the number of children in family homes subject to visitation, without reference to the time they were placed. Of the 3,185 children in homes, 2,181 were placed by the orphans' home associations, 849 by the State agents and 155 by other agencies.

Table 5 shows the population of the thirty-seven orphans' homes supported in whole or in part by public funds. On September 30, 1911, there were 961 boys and 599 girls on public support in the different counties, a decrease of ten from the number of public wards on the same day one year ago. This table indicates also, that only seventy-seven, or 5 per cent., of the children in orphans' homes are reported as full orphans, while 581, or 37 per cent., are reported as having one parent living, and in the case of 902, or 58 per cent., it is assumed in the absence of any information to the contrary, that both parents are living. The exact facts would probably modify these figures to a certain extent.

The age of children in the orphans' homes is also given in this table. There were 127 under 5 years of age, 597 from 5 to 10 years, and 836 10 years and over.

Table 6 shows the number of children in county poor asylums on August 31, 1911. Under the law, children between the ages of 3 and 17 years may not remain in the county poor asylum longer than sixty days. Of the ninety-two asylums in the State, only fourteen had inmates under 17 years of age on the day noted. Nine of those were babies, and of the remaining ten, four were

epileptic or feeble-minded, one was sick and five were able-bodied and bright.

I beg to express to you and, through you, to the board my sincere appreciation for the kind consideration extended me during the year now closing.

Respectfully submitted,

W. S. REYNOLDS,
State Agent.

ORPHANS' HOMES RECEIVING PUBLIC WARDS.

ALLEN COUNTY.

The Allen County Orphans' Home is situated on Bluffton Road at the edge of Fort Wayne. There is one two-story brick building. The plan is fair. Capacity, 60. The equipment is adequate. School is maintained in a frame cottage on the institution ground, under a teacher furnished by the township trustee. Children are received from Allen County only.

BARTHOLOMEW COUNTY.

Frances Comfort Thomas Orphans' Home is located in East Columbus. The building is two-story brick. Capacity, 50. Equipment fair. Management excellent. The care of the children in this institution is good. Children are received from Bartholomew County only.

CASS COUNTY.

The Cass County Orphans' Home is one mile north of Main street, Logansport. The building is two-story brick, fairly well planned and excellently kept. Capacity, 40. Population at time of last visit 7. Children are received from Cass County. The children attend the city schools.

CLARK COUNTY.

The Clark County Orphans' Home is located at 832 Meigs avenue, Jeffersonville. The building is old, brick, two stories. Capacity, 30. Population at last visit, 18. Children attend city schools. Not very much activity is manifest in the finding of family homes for the children. Children are received from Clark and Washington counties.

CLAY COUNTY.

The Clay County Orphans' Home is located in Knightsville. The building is a frame residence in only fair condition. Capacity, 25. Population at time of last visit, 13. Children attend the township school. This institution is always of small population and has the appearance of a family home. The care of the children during the past year has been satisfactory. Children are received from Clay County only.

DELAWARE COUNTY.

The Delaware County Orphans' Home is located $2\frac{1}{2}$ miles west of Muncie on the Indiana Union Traction car line. The building is brick, two stories. The plan and equipment is very satisfactory. Capacity, 60. Population at last visit, 40. The children are conveyed to township school by wagon. The condition of building and the children has always been found satisfactory. Children are received from Delaware and Blackford counties.

FLOYD COUNTY.

The Cornelia Memorial Orphans' Home is located at 1801 Ekin avenue, New Albany. Capacity, 30. Population at last visit, 14. The building is a two-story brick residence, with addition. The plan is poor for an institution. Equipment ample and in fair condition. The children attend city schools. Children are received from Floyd County only.

FRANKLIN COUNTY.

The Franklin County Orphans' Home is located one mile south of Brookville. The building is two-story brick. Capacity, 30. population at last visit, 9. Plan and equipment of the institution is very good. There are never many children present in this home and the institution is operated more as a family. The care of the children is very satisfactory. Children are received from Franklin County only.

GIBSON COUNTY.

The French Orphans' Home is located one mile north of Patoka. The building is an old brick residence, two stories. The condition of the building is poor. The equipment is very meager. Capacity, 30. Population at last visit, 23. The matron receives from the county 25 cents per day for each child cared for and upon this per diem supports the institution. School is maintained in a small frame building on the institution ground. Children are received from Gibson County only. The care and training of the children is not very satisfactory.

GRANT COUNTY.

The Grant County Orphans' Home is located one and one-half miles northwest of Marion. The main building is brick and single siding, two stories. The heating plant and laundry are in a build-

ing separate from the main building. Capacity, 65. Population at last visit, 68. School is held in two rooms within the building. Teachers are furnished by township trustee. A separate building for school should be provided. The plan of this institution building is poor but the equipment good. Children are received from Grant and Adams counties.

HENRY AND RUSH COUNTIES.

The Henry and Rush Counties Orphans' Home is located in Spiceland. The building is a frame residence building, with addition. Capacity, 30. Population at last visit, 21. Conditions at this institution are not entirely satisfactory. Change in management during the year has been disturbing to some extent. The equipment is not as extensive as desirable. There are no bath tubs nor inside toilets. The children attend the public schools in Spiceland. Children are received from Henry and Rush counties only.

JEFFERSON COUNTY.

The Jefferson County Orphans' Home is located in Madison. The institution building is old, badly worn but clean. All equipment is adequate and in good condition. Capacity, 25. Population at last visit, 14. Children attend city schools. All children cared for in this home are from Jefferson County.

JOHNSON COUNTY.

The Johnson County Orphans' Home is located three and one-half miles west of Franklin. The building is frame and not in very good condition. Capacity, 20. Population at last visit, 11. This institution is a large family home. The care of the children is excellent. We learn Mrs. Mary F. Atwood, who has efficiently managed this institution as matron for about ten years, retires at the close of this fiscal year. The county will lose a valuable worker. This institution receives children from Johnson County only.

KNOX COUNTY.

The Knox County Orphans' Home is located in Vincennes. Capacity, 50. Population at last visit, 50. The building is brick, two stories. The plan and equipment fair. Children attend city schools. The administration of the institution is very satisfactory. There is need of fire-escapes for boys' dormitory. Attention should

be given the provision for sex separation in the boys' and girls' dormitories. Children from Knox and Sullivan counties are received.

LAGRANGE COUNTY.

The Roger Orphans' Home of Lagrange County is located on 160 acres of land, 7 miles southwest of Lagrange. The building is a very poorly planned frame structure, two stories. The equipment is very insufficient. Capacity, 20. Population at last visit, 5. Fortunately a very small number of children are present in this institution. The institution is operated as a farm home. Children are received from Lagrange County only.

MADISON COUNTY.

The Madison County Orphans' Home is located at 2515 Columbus avenue, Anderson. Capacity, 40. Population at last visit, 30. The condition of this institution as to building, system of care and training of children is good. The children attend the city schools. Children are received from Madison County only.

MARION COUNTY.

The Marion County Board of Children's Guardians' Home is located at 5751 University avenue, Irvington. Children, wards of the Marion County Board of Children's Guardians, are cared for at this institution. Capacity, 65; population, 74. This building is frame, two stories. The school is provided for in two rooms within the building. The city furnishes two teachers. The equipment is very satisfactory.

The Indianapolis Orphans' Asylum is located at 4107 E. Washington street, Indianapolis. Capacity, 135. Population at last visit, 123. This institution is built on the cottage plan. The buildings are brick and cement plaster, two stories. There are two double cottages, the administration building containing the nursery and domestic department and a school building. The equipment, plan and condition of this institution is highly satisfactory. This institution receives children from many counties throughout the State.

The Home for Friendless Colored Children is located at 319 W. Twenty-first street, Indianapolis. This institution building is old, poorly planned and in poor condition. The management is intelligent and very satisfactory. Children are well cared for.

School is maintained in the building under supervision of city schools. Colored children are received from many counties in the State.

The Children's Home Society of Indiana. The receiving home of this society is located near Hadley. The building is brick, three stories. Capacity, 50. Population at last visit, 49. The plan, equipment and condition of this building are not satisfactory. There are no proper facilities for bathing; no inside toilets nor plumbing. The heating and lighting equipment is poor. The superintendent is doing the best possible under conditions. Children are received from many counties throughout the State.

The German General Protestant Orphans' Home is located at State and Nebraska streets, Indianapolis. Capacity, 70. Population at visit, 54. The building is brick, two stories. The equipment is ample and in good condition. The children attend the city schools. A properly equipped laundry is needed at this institution.

MARSHALL COUNTY.

The Julia E. Work Training School is located one mile north of Plymouth. Capacity, 150. Population at last visit, 183. This institution is built on the cottage plan. There are four cottages. They are frame, two stories. Two one-story frame school buildings erected by the township are used for the schools. The teachers are furnished by the township trustee. The equipment is good. Children are received from many counties in the State.

MIAMI COUNTY.

The German Baptist Orphans' Home is located in Mexico. The institution consists of two buildings, one for girls, one for boys. Capacity, 70. Population at last visit, 73. The buildings are frame, two stories. The plan is very unsatisfactory. The equipment is not adequate. School is maintained in a frame building on institution property. Children are received from several counties in the State.

MONTGOMERY COUNTY.

The Montgomery County Orphans' Home is located one mile west of Crawfordsville. Capacity, 25. Population at last visit, 17. Building is brick, two stories. The plan and equipment is fair. The administration and training of the children is not as satisfactory as the best standard would demand. The children

receive good and kind treatment. Children are received from Montgomery and Fountain counties. Very little effort is made to place children in family homes.

PIKE COUNTY.

The Thornton Pike County Orphans' Home is located in Petersburg. Capacity, 50. Population day of visit, 23. This building is brick, two stories. The equipment and management of this institution excellent. Children attend the Petersburg schools. The institution receives children from Pike and Gibson counties.

RANDOLPH COUNTY.

The James Moorman Orphans' Home is located two miles west of Winchester, on 174 acres of fine farming land. Capacity, 30. Population at time of last visit, 22. This institution building is brick, two stories, and well planned for the purpose used. Conditions good. School is maintained in the institution building. Children are received from Randolph County only.

SHELBY COUNTY.

The Gordon Children's Home is located in southeast edge of Shelbyville. Capacity, 30. Population at last visit, 24. The building is brick, two stories. Better provision should be made for sex separation in the arrangement of outside toilet used by boys and girls. Conditions at this institution are very satisfactory. The children attend the public school. Children are received from Shelby County only.

SPENCER COUNTY.

The Veatch Orphans' Home is located in Rockport. Capacity, 25. Population at last visit, 23. This building is a remodeled frame residence. There are two stories. The plan is poor and equipment only fair. The management is intelligent and satisfactory. Children are received from Spencer County only.

ST. JOSEPH COUNTY.

The Mishawaka Children's Home is located in Mishawaka. Capacity, 130. Population at last visit, 100. This institution building is brick, three stories. The building has been erected only a very few years and is an excellent structure. The plan is only fair. Conditions are good. The equipment is very satis-

factory. School is maintained in a frame cottage building on the institution property. Children are received from many counties in the State.

TIPPECANOE COUNTY.

The Tippecanoe County Children's Home is located at 1132 N. Tenth street, Lafayette. Capacity, 50. Population at last visit, 32. This institution building is a remodeled brick residence. The plan is very poor. Conditions are fairly satisfactory. Children receive careful attention and the management is competent. Children are received from Tippecanoe County only.

VANDERBURGH COUNTY.

The Vanderburgh County Board of Children's Guardians' Home is located at 507 Lincoln avenue, Evansville. Capacity, 40. Population at last visit, 24. This institution building is brick, two stories, and very satisfactorily planned. Conditions and management first class. Children are received and cared for who are wards of the Vanderburgh County Board of Children's Guardians.

The Evansville White Orphans' Home is located in Evansville. Capacity, 50. Population at last visit, 14. The building is a remodeled brick residence. The plan is only fair. Conditions are very good. The management is satisfactory. Children are received from Vanderburgh County.

The Evansville Colored Orphans' Asylum is located in Evansville. Capacity, 40. Population at last visit, 12. The building is brick, two stories, and in very good condition. The equipment is fair. There are no inside toilets. A very unsatisfactory condition exists in the arrangement of outside toilets. The present arrangement does not provide for proper sex separation. Colored children from Vanderburgh County are received at this institution.

VIGO COUNTY.

The Vigo County Home for Dependent Children is located six miles east of Terre Haute on a farm of sixty acres. There are three cottages and an administration building. The construction is brick, two stories. The plan, equipment and management is excellent. Capacity, 100. Population at last visit, 96. Children, wards of Vigo County Board of Children's Guardians, are cared for in this institution.

WABASH COUNTY.

White's Manual Labor Institute is located five miles southeast of Wabash, on 640 acres of good land. Capacity of institution buildings, 120. Population at last visit, 187. This institution is badly overcrowded. There are two buildings for children, also a school building, a part of which is used as living quarters for small boys. The main building is brick, two stories. A frame cottage, two stories, is used for boys. The equipment is fair. The management is very satisfactory. More room is needed for present population. A new dairy barn has been erected during the year. Children are received from many counties in the State.

WARRICK COUNTY.

The Warrick County Orphans' Home is located in Boonville. Capacity, 25. Population at last visit, 10. This building is a frame residence. The plan and equipment is very satisfactory for a small number of children. The management is good. Children attend city schools. Children are received from Warrick County only.

WELLS COUNTY.

The Wells County Orphans' Home is located four miles southeast of Bluffton on twelve acres of land. Capacity, 20. Population at last visit, 10. This is a poorly constructed and poorly planned frame farm cottage used as an institution building. Conditions are not satisfactory. The equipment is poor. The building is heated by stoves and lighted by kerosene lamps. There are no proper facilities for bathing. The children attend the township school. Children are received from Wells County only.

ORPHANS' HOMES RECEIVING PUBLIC WARDS.

INSTITUTION.	Owned by	Managed by	Maintenance.	Name and Address of Matron or Superintendent.
Allen Co.—Orphans' Home	County	Association	*Legal per diem and private donations.	Mrs. Ida M. Overmyer, Ft. Wayne.
Bartholomew Co.—Frances Comfort Thomas Orphans' Home.	County	Bd. Mgrs. appointed by Commissioners	Legal per diem	Mrs. J. M. Brown, Columbus.
Cass Co.—Orphans' Home.	County	Association	Legal per diem	Mrs. Rebecca Corney, Logansport.
Clark Co.—Orphans' Home.	Association	Association	Legal per diem and private donations	Mrs. Julia Twomey, Jeffersonville.
Clay Co.—Orphans' Home.	County	Co. Commissioners	Salary and expense donations	Mrs. Louvain Stouder, Knightsville.
Delaware Co.—Orphans' Home.	County	Association	Legal per diem	Mrs. Nellie M. France, Muncie.
Floyd Co.—Correll Memorial Orphans' Home	Association	Association	Legal per diem	Mrs. Helen R. Hyton, New Albany.
Franklin Co.—Orphans' Home.	County	Co. Commissioners	Salary and expense	Mrs. Belle Koerner, Brookville.
Gibson Co.—French Orphans' Home.	County	Co. Commissioners	Legal per diem	Mrs. Olive Marvel, Fatoka.
Graet Co.—Orphans' Home.	County	Association	Legal per diem	Miss Anna E. Fleming, Marion.
Hendricks Co.—Receiving Home	Society	Indiana Children's Home Society.	Legal per diem and private donations	J. L. Peetz, Indianapolis.
Henry and Rush Cos.—Orphans' Home	County	Co. Commissioners	Legal per diem	Miss Cora Shelley, Spiceland.
Jefferson Co.—Orphans' Home.	County	Co. Commissioners	Salary and expense	Miss Fannie Brown, Madison.
Johnson Co.—Orphans' Home	County	Co. Commissioners	Salary and expense	Mrs. Royal Logan, Franklin.
Knox Co.—Orphans' Home	County	Association	Legal per diem	Miss Minnie Hanna, Vincennes.
Lagrange Co.—Roger Orphans' Home	County	Co. Commissioners	Salary and expense	Samuel W. Bricker, Lagrange.
Madison Co.—Orphans' Home	County	Association	Legal per diem and private donations	Mrs. W. A. Harris.
Marion Co.—Orphans' Home	Association	Association	Legal per diem and private donations	Miss Carrie Thrall, Indianapolis.
Marion Co.—German General Protestant Orphans' Home.	Association	Association	Legal per diem and private donations	S. M. Roes, Indianapolis.
Marion Co.—Home for Friendless Colored Children.	Association	Association	Legal per diem and private donations	Mrs. Alice R. Taylor, Pres., Indianapolis.
Marion Co.—Board of Children's Guardians	County	Bd. of Guardians	Expense and legal per diem	Mrs. Julia H. Goodhart, Sec'y, Indianapolis.
Marshall Co.—Julia E. Work Training School	County	Church	Legal per diem	Mrs. Julia E. Work, Supt., Plymouth.
Miami Co.—German Baptist Orphans' Home.	County	Association	Legal per diem and private donations	Miss Anna Wagener, Mexico.
Monongomery Co.—Orphans' Home	County	Association	Legal per diem	Mrs. Catherine A. McDaniell, Craw'ville.
Pike Co.—Thornton Orphans' Home.	Trusteeship	Trustees	Legal per diem	Miss Della Gressel, Petersburg.
Randolph Co.—James Moorman Orphans' Home	County	Association	Legal per diem and private donations	A. R. Hart, Winchester.
Shelby Co.—Gordon Children's Home	County	Association	Legal per diem and private donations	Miss Lella A. Rossetter, Shelbyville.
Spencer Co.—Veach Orphans' Home	County	Association	Salary and expense	Mrs. Louisa Burkheart, Rockport.
St. Joseph Co.—Children's Aid Society.	Association	Association	Legal per diem and private donations	Miss Meda Smith, Mishawaka.
Tippecanoe Co.—Children's Home	County	Association	Legal per diem and private donations	Miss Lillian Janeway, Lafayette.
Vanderburgh Co.—Bd. of Children's Guardians	County	Bd. of Guardians	Legal per diem and expense	Mrs. Lottie Saulton, Evansville.
Vanderburgh Co.—Orphans' Home (White)	County	Association	Legal per diem and private donations	Miss Sarah Wartman, Sec'y, Evansville.
Vanderburgh Co.—Orphans' Home (Colored)	County	Association	Legal per diem and private donations	Miss Sarah Wartman, Sec'y, Evansville.
Vigo Co.—Board of Children's Guardians	County	Bd. of Guardians	Legal per diem and expense	Ovid Lawrence, Glem.

Wabash Co.—White's Manual Labor Institute.	Trusteeship.....	Friends' Church.....	Legal per diem and private donations.	Llewellyn Harkness, Wabash.
Warrick Co.—Orphans' Home.....	County.....	Association.....	Legal per diem.....	James E. Sanders, Boonville.
Wells Co.—Orphans' Home.....	County.....	Co. Commissioners	Salary and expense.....	George Nickelson, Bluffton.

*The "legal per diem" under "Maintenance" refers to the legal allowance per day for each dependent child, made by the Board of County Commissioners.

PRIVATE ORPHANS' HOMES.

Allen Co.—Reformed Ch. Orphans' Home.....	Reformed Church.	Bd. Managers.....	Private donations.....	Rev. B. Ruf, Ft. Wayne.
Allen Co.—St. Vincent's Orphan Asylum for Girls.	Catholic Church...	Bishop Ft. Wayne Diocese.	Private donations.....	Rev. W. G. Miller, Ft. Wayne.
Boone Co.—Crawford Baptist Industrial Home	Baptist Church.....	Bd. Managers.....	Private donations.....	W. H. Baldock, Zionsville.
Decatur Co.—I. O. O. F. Orphan Asylum and Home for Aged.	I. O. O. F.....	Bd. Managers, I. O. O. F.	Private donations.....	Mrs. Mary S. Lewis, Greensburg.
Hendricks Co.—Pentecost Orphanage.....	Pentecost Bands of the World.	Pentecost Band...	Private donations.....	Rev. T. H. Nelson, Indianapolis.
Henry Co.—Aged Persons' Home and Orphan Asylum.	German Bap. Ch. of So. Ind. Dist.	Bd. Managers.....	Private donations.....	David F. Hoover, Sec'y, Honey Creek.
Knox Co.—St. Vincent's Orphan Asylum for Boys.	Catholic Church...	Sisters of Providence	Private donations.....	Sister Mary Ellen, Vincennes.
Marion Co.—German Ev. Luth. Orphans' Home	German Luth. Ch.	Bd. Managers.....	Private donations.....	C. Hankemeier, Indianapolis.
Marion Co.—Sisters of the Good Shepherd....	Catholic Church...	Sisters of the Good Shepherd.	Private donations.....	Mother Superior, Indianapolis.
Marion Co.—St. Joseph's Training School for Girls.	Catholic Church...	Sisters of Providence	Private donations.....	Sister Mary Alogia, Indianapolis.
Tipton Co.—St. Joseph's Manual Labor School for Boys.	Catholic Church...	Bishop Ft. Wayne Diocese.	Private donations.....	Rev. J. A. Seimet, Lafayette.
Vermillion Co.—Collett Home for Orphans....	Trusteeship.....	Trustees.....	Endowment.....	J. A. Hughes, Cayuga.
Vigo Co.—Rose Orphan Home.....	Trusteeship.....	Trustees of Providence	Endowment.....	Ernest G. Alden, Terre Haute.
Vigo Co.—St. Ann's Orphan Asylum for Girls.	Catholic Church...	Sisters of Providence	Private donations.....	Sister Gregoria, Terre Haute.
Wayne Co.—Wernle Orphans' Home.....	Luth. Ohio Synod.	Bd. Managers.....	Private donations.....	Rev. F. W. Gahre, Richmond.

TABLE No. 1.

FIELD WORK OF THE STATE AGENTS FOR THE YEAR ENDING SEPTEMBER 30, 1911.

COUNTIES.	CHILDREN VISITED.				Children Not Found.	Children Returned to Counties.	CHILDREN PLACED IN HOMES.			Applications Investigated	Applications Rejected.	Visits to Orphans' Homes.	Visits to Poor Asylums.	Visits to County Commissioners.	Specials.	Days Required.	Total Cost to State, Including Salaries.	Total Cost to Counties.
	Total.	Doing Well.					Doing Fairly.	Doing Poorly.										
		Doing Well.	Doing Fairly.	Doing Poorly.														
Adams	31	19		4	6			1	1						4	7½	\$59 51	
Allen	45	37	8	1	8	2		1	4	1					13	16½	119 92	86 30
Bartholomew	3			1		4		3	3						7	2½	65 17	19 20
Benton	1			1				1	3						1	2½	19 47	
Blackford	1	1						1	1						1	2½	17 00	3 65
Boone	1			1				2	3						7	4¾	21 67	
Brown	5	1	4					1	3						3	3	20 18	
Carroll																½	3 41	1 20
Cass	1	1						1	7						6	4½	20 13	
Clark	12	10	2					2	2	3					5	16	109 03	9 35
Clay	41	36	1	4	5	1		5	3						9	19½	122 22	13 25
Clinton	11	11			1			2	1						4	8½	45 62	2 60
Crawford	3	3						1	3	1						3½	28 02	
Davess	27	24	1	2		3		4	4	1				1	10	13½	92 91	23 35
Dearborn	2		1	1				3	5	1					8	11½	75 32	
Decatur	20	19	1		1	4		2	4	1					6	13	96 79	12 95
Dekalb								8		3								
Delaware	38	26	5	7	8	7		7	12	3					9	22½	136 01	1 40
Dubuois	63	49	12	2	6			7	7		11				18	32½	201 62	32 60
Elkhart	13	9	3	1				3	6	2					7	17½	90 08	
	5	1	1	3				12	11	1					2	12½	98 36	2 95

Fayette.	12	9	2	1	1	3	2	1	1	1	2	1	8	3	20 01
Floyd.	32	23	6	3	3	5	1	1	1	1	2	1	8	10 ³	71 08
Fountain.															22 80
Franklin.	17	16	1											10 ⁴	6 50
Fulton.															63 13
Gibson.	4	2	1	1											54 70
Grant.	42	31	8	3	6	4	2	1	4	5	2	2	6	7 ²	1 10
Greene.	48	39	3	6	8	24	3	10	10	4	1	17	10	14 ³	12 30
Hamilton.	1		1		1								3	5	91 65
Hancock.															26 05
Harrison.	40	33	6	1	1								2	14 ¹	94 87
Hendricks.	33	25	4	4									16	17 ¹	4 80
Henry.	12	8	3										1	5 ¹	35 79
Howard.	48	34	9	5	3	4	5	7	14	13	2	2	17	32 ²	202 87
Huntington.															40 40
Jackson.															13 75
Jasper.	3	2	1										2	15 ¹	13 75
Jay.	38	36	2		3	1	8	2	5	6	1	7	10	16 ²	14 75
Jefferson.	27	24	1	2	1	2	6	2	3	5	2	3	1	8 ²	25
Jennings.	27	23	3	1	2				1	1				6 ²	59 18
Johnson.															70 68
Knox.	2	2											2	5 ¹	35 42
Kosciusko.	21	13	6	2	2				6	6	1	1	10	19 ²	128 15
Lagrange.	24	20	1	3		3	3	3	4	5	1	8	10	11 ²	19 35
Lake.	3	1	1	1					5	5	1	1	1	11 ²	96 80
Laporte.															25 45
Lawrence.															29 03
Madison.															15
Marion.	9	5	2	2	1				3	1	3	3	3	2	24 92
Marshall.	151	112	20	19	9	4	1	16	14	3			28	30 ¹	13 12
Martin.	24	18	6		1	1	58	66	11	44	3		44	611 90	80
Miami.	72	65	6	1	7	13	3	4	4	4	4		92 58	13 ²	2 80
Monroe.													11	237 84	52 10
Montgomery.														34 ²	
Morgan.	297	190	68	39	59	13	37	18	80	101	17	49	2	1,065 57	83 30
Morton.	40	31	8	1	5				16	4	4	30	11	33 ¹	4 30
	5	5							1	1	1	1	2	6 ¹	267 97
	5	3	1	1	1	2			4	5	1	7	2	13 ²	42 36
															107 22
															6 75
															9 35
															34 90
															67 22
															70
															20 02

TABLE No. 1—Continued.

COUNTIES.	CHILDREN VISITED.			Children Not Found.	Children Returned to Counties.	CHILDREN PLACED IN HOMES.			Applications Investigated.	Applications Rejected.	Visits to Orphans' Homes.	Visits to Poor Asylums.	Visits to County Commissioners.	Specials.	Days Required.	Total Cost to State, Including Salaries.	Total Cost to Counties.	
	Total.	Doing Well.	Doing Fairly Well.			Doing Poorly.	New Children Received.	Children Transferred.										Number Placed.
Noble.....							1		4	1						23 88	\$2 00	
Ohio.....	10	8	2						1							31 29		
Orange.....	18	14	2	2				2								21 77		
Owen.....																		
Parke.....	14	12	1	1	1		4	3	1					1	5 ¹²	31 03	12 80	
Perry.....	43	32	6	5	2		1		12	5				5	24	142 75	1 00	
Pike.....	15	12	2	1			3	3	1		7			5	8 ¹²	69 16	15 45	
Porter.....	39	34	5		7		1		23	3		2		13	29 ¹²	220 86	1 60	
Poway.....	1		1						3					5	33	25 51		
Pulaski.....	4	4							5	1				4	9 ¹²	60 93		
Punam.....	16	12	3	1	6	1	2	1	2	1				6	9	55 13	70	
Randolph.....	39	30	8	1	3	2	2	1	1	1	4			3	13 ¹²	76 72	8 00	
Ripley.....	1		1				1	1	6	3	1			6	11 ¹²	81 70		
Rush.....	22	18	2	2		1	5	5	1	3				3	8 ¹²	51 44	20 90	
Scott.....	20	19	1						3	6				1	10 ¹²	69 83		
Shelby.....						5	4	2	2	1	8			10	7 ¹²	52 16	10 85	
Spencer.....							1	3	1	2				2	4 ¹²	29 16		
Starke.....					1				5	2	2			1	4 ¹²	42 13		
Steuben.....	1			1					1	1				1	5 ¹²	11 84		
St. Joseph.....	8	3	2	3	1	4	7	6	9	1	16			19	22 ¹²	167 16	29 80	
Sullivan.....	26	24	1	1	3		7	1						6	5 ¹²	43 68	17 25	
Switzerland.....						2			4	1				3	7 ¹²	49 67		
Tippecanoe.....							5	4	2	4	1			11	13 ¹²	81 68	12 10	
Tipton.....	8	1	3	4	1				3	7				7	17 ¹²	99 25		

[illegible]

DEPENDENT CHILDREN.

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Fayette.	5	3	1	1	1	11	8	1	2	1	1	3	3	5	3.4
Floyd.	22	7	1	1		48	32	12	2	1	3	3	7	13	4.2
Fountain.	10	3		1		20	14	10				1	1	11	5.3
Franklin.	3					6	4	2						9	5.8
Fulton.	4	7	1			21	12	5		1	2	1	2	4	2.3
Gibson.	27	13	4	2	1	79	47	14	1	6	8	5	12	25	8.2
Grant.	139	46	30	7	2	404	232	57	6	35	17	28	44	61	11.8
Greene.	16		2	2		46	25	8	1	1	2	3	6	15	4.0
Hamilton.	2	1				4	3			1			2	1	3
Hancock.	6	1	1			11	8	4				1	3	6	3.1
Harrison.													2	2	5.7
Hendricks.	22	2	2	1		42	28	13	1	5	2	1	4	12	
Henry.	16	2	2			32	21	7	1	3	2	1	3	10	3.3
Howard.	27	8	5	3		70	43	23		1	7	3	4	13	3.9
Huntington.	5	3				11	8	4				1	1	10	3.3
Huntington.	5	3				11	8	4				1	1	10	3.3
Jackson.	4	1				6	5			1		2	2	6	2.4
Jasper.	1					1	1	1						3	2.2
Jay.	1	1				3	2	1				1		13	5.2
Jefferson.	38	16	6	3		100	63	21	2	7	1	5	16	13	7.3
Jennings.	3			1		7	4					3		2	1.4
Johnson.	45	6	5	3		84	59	27	2	3	1	3	10	12	3.8
Knox.	50	14	7	3	2	121	76	36	2	6	2	4	19	34	8.6
Kosciusko.	9	1				11	10	2	1	1	2	1	4	14	1.4
Kosciusko.	9	1				11	10	2	1	1	2	1	4	14	1.4
Lagrange.	6	2	1			13	9	4				1	3	7	4.6
Lake.	8	3	1	1		21	13	9		2		1	1	14	5.1
Laporte.	26	3	1	1	1	47	32	12		3	1	3	2	14	3.0
Lawrence.	7	1	1	1		30	12	3		1	2	2	1	21	6.8
Madison.	74	40	8	5	2	232	133	50	6	11	8	9	32	26	3.9
Marion.	194	38	14	2	1	325	249	95	13	15	8	18	61	306	11.6
Marshall.	15	4		1		27	20	10	1	1	2	3	3	15	6.2
Martin.	1					1	1							1	7
Miami.	7	2				11	9	5	1	1	1	1	17	5	5.7
Monroe.															
Montgomery.	7	3	2	4	1	40	17	2		5	3	1	4	11	4.6
Morgan.	7	3				13	10	5	1			1	3	17	3.8
Morgan.	1					1	1						1	3	3.3
Newton.	2	4				10	6	2		1	1		1	3	2.8
Noble.	1					1	1	1						5	
Noble.			1			3	1	1						2	2.3
Ohio.						3	1	1						4	
Orange.	4	1				6	5			2					2.0
Owen.	4	1		1		13	3	1	1	1	1				

TABLE No. 2—Continued.

COUNTIES.	NUMBER OF DIFFERENT CHILDREN RECEIVED.										OFF PUBLIC SUPPORT SEPTEMBER 30, 1911.						Returned to County.	Children Supported by Counties in the Different Orphans' Homes, Sept. 30, 1911.	Number of Children in Each 10,000 Inhabitants.
	Placed Once.	Placed Twice.	Placed Three Times.	Placed Four Times.	Placed Five Times.	Placed Six Times.	Placed Seven Times.	Placed Eight Times.	Total Number Placements.	Total Number Different Children Placed.	In Family Homes.			Over Age and Self-Supporting.	Ran Away.	Other Institutions.			
											Subject to Visitation.	Adopted.	Over Age.						
Parke	13	7	1	2	1	1			49	25	9	1	3		4			7	4.5
Perry	8	2	1	2					23	13	3		3		2	1		1	1.5
Pike	24	7	3					2	63	36	18		7	1	3	2		3	11.1
Porter	13	3							19	16	5		2	1	2			6	5.3
Posey	9	7	3	2	1				45	22	2		4	1	4	2		5	3.2
Pulaski																		7	1.5
Putnam	5	3		1			1		22	10	2		2		1			2	1.5
Randolph	18	6	2		1				41	27	11		3	2	3	1		5	2.9
Ripley																			
Rush	2		1	2	1				18	6	3		1	1			1	3	1.5
Scott	28	9	7	1	1				84	47	18		8	4	5	1	1	7	5.1
Shelby	1								5	2				1			1	5	6.0
	33	8	3	2			1		73	47	12	1	3	4	6	3		16	8.5
Spencer	17	9	2			1	1	1	62	31	15		4	1	2	3	2	3	12.0
Starke	3								3	3	2								
Stearns	3	1							5	4					1	1		3	1
St. Joseph	18	6							30	24	13	1	1		3		5	43	5.1
Sullivan																			
Switzerland	12	3							18	15	11			1			3	18	5.5
Tipton	4	6	1		3			1	46	16	3		4		2	1	4	3	4.0
Tippacaw	25	9	3					1	60	38	12	1	2	1	3	5	8	37	9.2
Tipton	1	1							3	2	1						1	5	2.7
Union	1			1					5	2	1		1					1	1.5
Vanderburgh	74	19	12	8		1			186	115	28	5	17		13	11	30	50	6.4
Vermillion	20	2							24	22	11		4			4	7	22	11.6
Vigo	49	23	7	2			1		135	84	13	1	7		6	2	39	103	11.7

Wabash.....	32	19	8	2	1	109	62	21	2	11	2	5	1	5	1	14	19	7.0	
Warren.....	25	6	4	1	5	3	1	1	4	3.6	
Warrick.....	25	6	4	1	53	36	8	3	8	6	15	6.8	
Washington.....	10	3	2	1	26	16	9	1	1	2	4	3	1	2	10	5.7
Wayne.....	35	14	7	6	2	2	2	1	152	69	24	2	3	4	3	11	10	3	9	23	5.2	
Wells.....	14	3	1	22	18	4	4	1	3	6	12	5.3	
White.....	
Whitley.....	5	6	1	1	24	13	6	1	2	
Other Agencies.....	7	1	1	14	9	1	3	1	2	1	
Total.....	1,617	511	207	96	29	17	10	9	*14,053	*12,498	849	73	284	34	153	80	236	219	26	544	1,560	5.7	

*One child placed nine times.

†One child placed eleven times.

TABLE No. 3.

MOVEMENT OF POPULATION OF ORPHANS' HOMES.

ORPHANS' HOMES.	Present September 30, 1910.	Admissions.		Discharges.										Present September 30, 1911.
		New Admissions.	Re-Admissions.	In Family Homes.		With Parents		Transferred to Other Orphans' Homes.	Adopted.	Over Age or Self-Supporting.	Ran Away.	Died.		
				Placed by State Agency.	Placed by Association.	Placed by State Agency.	Placed by Association.							
Adams—Board of Guardians.	60	6	3	8	2	1	4	2	1	1	1	55		
Allen		14	1	3	3	2	1	7	3	1		30		
Allen—Board of Guardians.	29	16	10	4	9	10								
Bartholomew														
Benton—Board of Guardians		1		1				7						
Blackford—Board of Guardians.		6	10	7		2								
Cass	14	14	8	1	8	10								
Clark	22	4	2	4		1		1		1				
Clay		13	7	5	13	3		1	2	1				
Delaware.	19	19	27	7	17	6		7	2		1	14		
Floyd	42	19	7	2	4	2		1	1		1	47		
Floyd—Board of Guardians	14	8	1	2		2						13		
Franklin		2				2								
Franklin	7	3	2		1	2						9		
Gibson	12	16	6	1	6	3		1	2			20		
Grant	86	42	7	21	23	4		1	13	1	1	67		
Greene—Board of Guardians.		2				8		2						

[illegible]

TABLE No. 4—Continued.

ORPHANS' HOMES.	WORK OF ORPHANS' HOME ASSOCIATION.										CHILDREN IN HOMES SUBJECT TO VISITATION.	
	PLACEMENTS IN HOMES.										Placed by Associations.	Placed by State Agent.
	1911.											
	1907.	1908.	1909.	1910.	Once.	Twice.	Three Times.	Total Num-ber of Placements.	Total Chil-dren Placed.	Restorations to Parents.		
Gibson.....	9	4	18	4	7	1		9	8	3	31	
Gibson—Board of Guardians.....					3			3	3		1	
Grant.....	15	16	10	14	28			28	28	8	48	
Grant—Board of Guardians.....		6	6									
Hamilton—Board of Guardians.....	1		3								5	
Hancock—Board of Guardians.....										1	3	
Hendricks.....											10	
Henry.....												
Henry and Rush.....	8	12	8	10	4			4	4	15	17	
Howard.....											3	
Howard—Board of Guardians.....			2	1	1			1	1	1	1	
Huntington.....											1	
Jefferson.....	3	1	1	5							7	
Johnson.....	5	3	8	2	1			1	1	2	21	
Johnson—Board of Guardians.....	1											
Knox.....	31	26	22	43	22	1	1	27	24	3	67	
Lagrange.....	2	1	4	4	8			8	8	8	17	
Laporte—Board of Guardians.....	3		1									
Lawrence—Board of Guardians.....	4	1			2			2	2		2	
Madison.....	22	22	15	20	17	1	1	22	19	3	56	

Madison—Board of Guardians.	3	94	79	8	2	**99	**89	8	134
Marion—Board of Guardians.	80	90	79	8	2			1	186
Marion—Indianapolis Orphans' Asylum.	50	48	43	7	7		**143	15	417
Marion—Children's Home Society.	115	181	204	26	7				
Marion—German General Protestant.	3	2	4	3	3	3	3	2	6
Marion—Home for Friendless Colored Children.	3	3	3					6	9
Marshall—Work Training School.	11	26	18	7		7	7	34	34
Miami—German Baptist.	38	71	22	25	3	31	28	20	101
Montgomery.	7	4	6	5		5	5	3	20
Montgomery—Board of Guardians.	2	3	2	1		1	1	1	6
Parke—Board of Guardians.	10	12	6	6		6	6	2	21
Pike.									
Posey—Board of Guardians.			4	9	1	11	10	1	8
Pulaski—Board of Guardians.				1		1	1	1	2
*Putnam.									3
Putnam—Board of Guardians.		4	4		2	4	2	1	
Randolph.	11	8	6	8		8	8		31
Ripley—Board of Guardians.		6	3	1		1	1	1	1
Shelby.	4	3	14	2		2	2	7	27
Spencer.	3	4	5	5		5	5	20	20
St. Joseph—Children's Aid Society.	29	16	34	24	6	36	30	13	102
St. Joseph—Board of Guardians.	22	12	10	18	5	28	23	1	32
Sullivan—Board of Guardians.	3	1	1						2
Tippecanoe.	11	19	12	13	1	16	14	5	35
Tippecanoe—Board of Guardians.	3	1	5	3	2	7	5	1	5
Tipton—Board of Guardians.		4	1						6
Union—Board of Guardians.	12	15	5	7	1	2	1		
Vanderburgh—White.			10	7		7	7	5	29
Vanderburgh—Colored.	2	3	1	4		4	4		7
Vanderburgh—Board of Guardians.	23	14	29	16	2	23	19	4	56
Vermillion—Board of Guardians.	4	18	7	1		1	1		1
Vigo—Board of Guardians.	68	89	90	60	4	71	65	30	136
Wabash—White's Institute.	6	8	9	5		5	5	19	17
*Warren.									1
Warrick.	5	4	5	7		7	7		22
*Wayne.									2
Wayne—Board of Guardians.		2	2						3
Wells.	10	13	11	9		9	9	15	30
Wells—Board of Guardians.		5	7	1		1	1	3	7

TABLE No. 5.

POPULATION OF ORPHANS' HOMES, CLASSIFIED.

ORPHANS' HOMES.	No. Present Sept. 30, 1911.			Orphans.	Half Orphans.	Both Parents Living.	Ages.														Not given.			
	Boys.	Girls.	Total.				Under 1 Year.	One Year.	Two Years.	Three Years.	Four Years.	Five Years.	Six Years.	Seven Years.	Eight Years.	Nine Years.	Ten Years.	Eleven Years.	Twelve Years.	Thirteen Years.		Fourteen Years.	Fifteen Years.	Sixteen Years and Over.
Allen.....	36	19	55	4	24	27	1					3	4	4	6	3	3	2	8	6	5	4	7	2
Bartholomew.....	12	18	30	1	18	11						2	2	3	4	3	3	1	3	1	1	3	2	3
Cass.....	10	7	17		6	11						1	4	4	1	1	1	1	1	1	1			
Clark.....	18	3	21	1	5	15			2	2			2	3	2	2	7		1	1	1			
Clay.....	11	3	14	2	3	9						2	2	3	3			2	2	2				
Delaware.....	26	21	47		12	35	1		1			4	4	6	1	7	3	4	3	3	2	3	1	
Floyd.....	11	2	13		8	5			1						2	1	2	2	2	3	1	1		
Franklin.....	4	5	9	1	4	4	1						2				1	1	1	1				
Gibson.....	15	5	20		8	12			1			1		2	3	2	3	3	3	2	2		1	1
Grant.....	28	39	67	5	25	37	2		4	2		3	2	3	9	3	6	10	3	3	4	3	3	1
Henry and Rush.....	13	6	19	1	10	8			1			1	2	1	3	2	3	2	2	4	1			
Jefferson.....	11	1	12	1	1	10									1	1	2	3	2	2	1			
Johnson.....	7	5	12			12	1		1				1		2	1	2	2	2	2		1		
Knox.....	31	19	50	6	17	27			1	2		2	3	4	10	7	5	9	1			2	4	
Lagrange.....	4	3	7		3	4			1			1	1	2	3		2	3	1	1	1	4	2	1
Madison.....	10	9	25	3	17	5			1	1		1	2	2	3	1	2	3	1	1	1			
Marion—Board of Guardians.....	35	22	57	1	19	37		1		1		4	4	3	3	9	9	10	4	4	4	3	2	
Marion—Children's Home Society.....	54	35	89	4	40	45		1	2	2	6	4	9	6	15	12	9	10	5	3	3		1	1
Marion—Indianapolis Orphans' Asylum.....	55	28	83	1	25	57	3	2	5	3	4	5	3	5	12	6	9	8	7	3	3	1	3	4
Marion—German Protestant.....	23	26	49	4	42	3			1		2	1	3	3	6	5	1	4	6	6	9	4		

TABLE No. 5—Continued.

ORPHANS' HOMES.	No. Present Sept. 30, 1911.			AGES.																		Not given.
	Boys.	Girls.	Total.	Under 1 Year.	One Year.	Two Years.	Three Years.	Four Years.	Five Years.	Six Years.	Seven Years.	Eight Years.	Nine Years.	Ten Years.	Eleven Years.	Twelve Years.	Thirteen Years.	Fourteen Years.	Fifteen Years.	Sixteen Years and Over.		
Orphans.																						
Half Orphans.																						
Both Parents Living.																						
Marion—Home for Friendless Colored Children.	44	24	68	6	2	6	1	4	7	2	3	5	6	5	9	3	4	5				
Marshall—Work Training School.	96	89	185	1		1	1		7	7	12	8	20	8	22	9	16	17	13	43		
Miami—German Baptist.	37	19	56	2	29	25	1	3	3	3	3	4	8	6	6	6	6	1	1	2		
Montgomery.	5	11	16	1							2		3	1	2	3		1				
Pike.	17	4	21					1		1	4	2	2	4	3	2	1		1			
R and Alph.	14	7	21					1	1	3	1	4	3	3	3	2	2	1		1		
Shelby.	11	12	23		1	1	1	2	1	1	2	2	2	4	3	2	2	1	1	2		
Spencer.	10	14	24				4		2	1	2	2	4	2		1	2	3		1		
St. Joseph.	55	24	79	4		3	3	2	5	6	9	9	6	9	6	6	6	1	3	3		
Tippecanoe.	9	13	22	3	1	1	3	3	1	2	4	3	1	2	1	5	2					
Vanderburgh—White.	7	9	16	2						1			2	1	2	5	2					
Vanderburgh—Colored.	7	3	10	1								1		2	1	3	2		1			
Vanderburgh—Board of Guardians.	15	11	26				1		1	2	1	3	1	4	1	4		1	1	6		
Vigo—Board of Guardians.	71	34	105				4	1	8	10	9	13	13	10	10	7	1	5	3	10		
Wabash—White's Institute.	127	42	169	10					2	4	9	12	9	15	10	19	18	20	22	29		
Warren.	9	4	13		1	1	1		2	1	1	1	2	2	2	1						
Wells.	7	3	10	1				2	1	1		1	2			1		1				
Totals.	961	599	1 560	77	581	902	36	42	76	96	113	158	154	148	103	131	104	86	71	126		
																				7		

CHILDREN IN COUNTY POOR ASYLUMS, AUGUST 31, 1911.

COUNTIES.	FROM THREE TO SEVENTEEN YEARS.			Under Three Years.	Total.
	Feeble- minded or Epileptic.	Sick or Crippled.	Able- bodied and Bright.		
Allen.....	1				1
Blackford.....				1	1
Crawford.....		1			1
Delaware.....	1				1
Hendricks.....			1	2	3
Henry.....				2	2
Lake.....			1		1
Madison.....	1				1
Martin.....				1	1
Pike.....				1	1
Porter.....			1		1
Vermillion.....				1	1
Vigo.....	1				1
Washington.....			2	1	3
Total.....	4	1	5	9	19

TRUSTEES AND SUPERINTENDENTS OF THE STATE INSTITUTIONS.

CENTRAL HOSPITAL FOR THE INSANE, INDIANAPOLIS.

First Appointment.

Term Expires.

1909.	Walter S. Chambers, New Castle.....	January 1, 1912
1904.	D. H. Davis, Knightsville.....	January 1, 1913
1907.	Hugh Th. Miller, Columbus.....	January 1, 1914
1907.	Adam Heimberger, New Albany.....	April 10, 1915
1893.	Dr. Geo. F. Edenharter, Superintendent.	

NORTHERN HOSPITAL FOR THE INSANE, LOGANSFORT.

1911.	A. B. Compton, Delphi.....	January 1, 1912
1903.	Warren T. McCray, Kentland.....	January 1, 1913
1897.	Charles W. Slick, Mishawaka.....	January 1, 1914
1911.	Moses Epstein, Frankfort	January 1, 1915
1908.	Dr. Fred W. Terflinger, Superintendent.	

EASTERN HOSPITAL FOR INSANE, RICHMOND.

1905.	John W. Hanan, Lagrange.....	January 1, 1912
1906.	Joseph L. Cowing, Rushville.....	January 1, 1913
1906.	John Detamore, Portland.....	January 1, 1914
1910.	Meredith Nicholson, Indianapolis.....	May 6, 1915
1891.	Dr. S. E. Smith, Superintendent.	

SOUTHERN HOSPITAL FOR INSANE, EVANSVILLE.

1911.	Joseph T. Akin, Sullivan.....	May 6, 1912
1905.	John T. Stout, Paoli.....	January 1, 1913
1907.	Wm. S. Bogy, Bloomfield.....	May 6, 1915
1907.	Bird H. Davis, Newport.....	May 6, 1915
1903.	Dr. Charles E. Laughlin, Superintendent.	

SOUTHEASTERN HOSPITAL FOR INSANE, NORTH MADISON.

1909.	Eph Inman, Washington.....	August 1, 1912
1909.	Charles Cravens, Madison.....	August 1, 1913
1911.	Francis M. Griffith, Vevay.....	August 1, 1914
1911.	James W. Lilly, Indianapolis.....	August 1, 1915
1910.	Dr. E. P. Busse, Superintendent.	

SOLDIERS' HOME, LAFAYETTE.

1908.	Andrew C. McCorkle, Lafayette.....	November 11, 1912
1906.	John W. Rinear, Liberty Center.....	February 25, 1913
1909.	Marcus W. Collett, Logansport.....	February 25, 1913
1901.	Louis B. Fulwiler, Peru.....	February 25, 1915
1911.	D. B. Kehler, Commandant.	

SOLDIERS' AND SAILORS' ORPHANS' HOME, KNIGHTSTOWN.

First Appointment.	Term Expires.
1909. Ferdinand F. Boltz, Bluffton.....	March 23, 1913
1909. Daniel F. Mustard, Anderson.....	March 23, 1913
1907. Luther Short, Franklin.....	September 7, 1915
1911. Mrs. Ida S. McBride, Indianapolis.....	September 7, 1915
1911. P. P. Stultz, Superintendent.	

INDIANA STATE SCHOOL FOR THE DEAF, INDIANAPOLIS.

1902. Wm. P. Herron, Crawfordsville.....	January 1, 1912
1904. H. B. Brown, Valparaiso.....	January 1, 1913
1907. Ele Stansbury, Williamsport.....	April 10, 1915
1909. William Geake, Fort Wayne.....	January 1, 1915
1889. Richard O. Johnson, Superintendent.	

INDIANA SCHOOL FOR THE BLIND, INDIANAPOLIS.

1902. A. C. Pilkenton, Greenfield.....	January 1, 1912
1906. Louis Dunlap, Covington.....	January 1, 1913
1910. Owen D. Odell, Indianapolis.....	January 1, 1914
1907. Friend F. Wiley, Edinburg.....	May 6, 1915
1898. George S. Wilson, Superintendent.	

SCHOOL FOR FEEBLE-MINDED YOUTH, FORT WAYNE.

1897. Mrs. Mary R. Harper, Fort Wayne.....	March 10, 1913
1909. Anthony M. Ellering, Michigan City.....	March 10, 1913
1903. James W. Sale, Bluffton.....	May 6, 1915
1911. George D. Gaby, Brimfield.....	May 6, 1915
1903. A. E. Carroll, Superintendent.	

VILLAGE FOR EPILEPTICS, NEW CASTLE.

1906. Enoch G. Hogate, Bloomington.....	March 15, 1912
1909. Dr. Wilmer Christian, Indianapolis.....	March 15, 1913
1909. David Whitesides, Franklin.....	June 25, 1915
1911. L. M. Sniff, Angola.....	March 15, 1915
1906. Dr. W. C. Van Nuys, Superintendent.	

TUBERCULOSIS HOSPITAL, ROCKVILLE.

1910. Dr. O. V. Schuman, Columbia City.....	December 1, 1911
1910. Isaac R. Strouse, Rockville.....	December 1, 1912
1910. Dr. Henry Moore, Indianapolis.....	December 1, 1913
1911. Dr. H. B. Leavitt, Superintendent.	

STATE PRISON, MICHIGAN CITY.

1909. Frank Baird, Attica.....	January 1, 1912
1911. John B. Stoll, South Bend.....	January 1, 1913
1907. Herbert R. Koffel, Knox.....	January 1, 1914
1907. Michael E. Foley, Indianapolis.....	May 6, 1915
1911. Edward J. Fogarty, Warden.	

INDIANA REFORMATORY, JEFFERSONVILLE.

First Appointment.	Term Expires.
1897. D. J. Terhune, Linton.....	March 22, 1912
1909. Dr. H. C. Sharp, West Baden.....	March 22, 1913
1910. Alvin Padgett, Washington.....	March 22, 1914
1911. J. H. Weathers, New Albany.....	March 22, 1915
1909. Dr. D. C. Peyton, Superintendent.	

INDIANA BOYS' SCHOOL, PLAINFIELD.

*1903. Joseph B. Homan, Danville.....	March 1, 1913
1907. Guy H. Humphreys, Bloomfield.....	April 10, 1915
1910. Harry T. Schloss, Terre Haute.....	April 10, 1915
1911. Mason B. Thomas, Crawfordsville.....	April 10, 1915
1911. Guy C. Hanna, Superintendent.	

INDIANA GIRLS' SCHOOL, CLERMONT.

1907. Mrs. Lottie White Caldwell, Lafayette.....	April 1, 1912
1909. Mrs. Araminta A. Kern, Indianapolis.....	April 1, 1913
1907. Mrs. Sarah Tarney Campbell, Anderson.....	April 1, 1914
1909. Mrs. Nellie M. Ellingham, Indianapolis.....	April 1, 1915
1911. Dr. Kenosha Sessions, Superintendent.	

INDIANA WOMAN'S PRISON, INDIANAPOLIS.

1907. Mrs. Fanny McKinney McKee, Indianapolis.....	April 10, 1915
1911. Mrs. Charlotte J. Dunn, Indianapolis.....	April 10, 1915
1911. Miss Etta E. Houk, Ossian.....	April 10, 1915
1911. Mrs. Alice Wilkie Poynter, Sullivan.....	April 10, 1915
1901. Miss Emily E. Rhoades, Superintendent.	

STATE BOARD OF PARDONS.

THOMAS A. DAILY.....	Indianapolis.
ALBERT D. THOMAS.....	Crawfordsville.
HARRY B. DARLING.....	Laporte.

*Has served continuously since 1893 except the years 1907-1909.

FINANCIAL STATEMENT.

OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

	Expense Fund.	Agency Fund.	Maternity Hospital Fund.	Total.
October 31, 1910.....	\$783 23	\$925 23	\$92 80	\$1,801 26
November 30, 1910.....	618 11	860 00	119 40	1,597 51
December 31, 1910.....	764 64	990 09	212 96	1,967 69
January 31, 1911.....	582 00	984 89	105 40	1,672 29
February 28, 1911.....	590 91	972 20	118 50	1,681 61
March 31, 1911.....	600 41	1,129 30	119 35	1,849 06
April 30, 1911.....	857 24	1,159 75	133 75	2,150 74
May 31, 1911.....	681 67	1,259 93	156 60	2,098 20
June 30, 1911.....	983 35	995 07	87 44	2,065 86
July 31, 1911.....	790 28	817 54	124 05	1,731 87
August 31, 1911.....	931 99	924 14	52 60	1,908 73
September 30, 1911.....	1,314 25	1,480 19	174 62	2,969 06
Total.....	\$9,498 08	\$12,498 33	\$1,497 47	\$23,493 88
Reverting to general fund.....	1 92	1 67	2 53	6 12
Total appropriations.....	\$9,500 00	\$12,500 00	\$1,500 00	\$23,500 00

DISBURSEMENTS. EXPENSE FUND.

	Oct., 1910	Nov., 1910	Dec., 1910	Jan., 1911	Feb., 1911	March, 1911	April, 1911	May, 1911	June, 1911	July, 1911	Aug., 1911	Sept., 1911	Total.	Grand Total.
Salaries														
Secretary	\$250 00	\$250 00	\$250 00	\$250 00	\$250 00	\$250 00	\$250 00	\$250 00	\$300 00	\$300 00	\$300 00	\$300 00	\$3,200 00	\$6,254 50
Clerks	222 53	236 00	225 00	203 75	204 00	232 15	257 85	242 00	243 00	277 00	209 00	200 00	2,842 28	
Inspectors							5 00		21 00	41 56	62 60	82 15	212 31	
Members' traveling expenses—														
Demetrius C. Brown		3 95	4 00				5 65		84 89	10 80	119 82		109 89	582 50
W. H. Eichhorn			4 80							8 15			119 82	
Emma Lee Egan	97 00			95		18 05			88 48		13 55		109 05	
Francis H. Givelsk			12 15	95		14 35					5 10		121 03	436 23
John H. Holliday									89 35				18 20	
Mary A. Spink, M. D.													103 70	
Secretary's traveling expenses—														
Hotel	32 70	5 35	5 00	35	3 90	3 40	6 90	2 00	42 35	9 25			111 20	256 35
Transportation	48 10	26 35	35 85	25 90	21 70	26 65	9 90	4 40	71 02	31 35			301 22	
Livery, street cars, etc.	1 60	2 10	35	5 50		95	2 15	30	4 80	1 05			18 80	
Telegraph and telephone	1 21		05			45	1 05		2 05	20			5 01	1 65
Inspector's traveling expenses—														
A. R. Charman							2 70		17 20	29 15	42 25	42 45	2 70	
S. Ethel Clark										19 75	58 00	44 85	131 05	436 23
W. S. Reynolds													122 60	
Clerk's traveling expenses				60				1 05					81 65	
Office expense														
Telephone														
Rent	13 00			13 00	13 10	2 50	8 75	4 00	6 74	12 50			\$38 50	677 94
Long distance calls		2 55	6 40	10 65		3 70	2 48			7 43	8 40		70 42	
Telegrams		1 89	1 42	87	1 85	1 03	77			2 75	2 79	1 41	90 97	
Freight, drayage and express	1 50	3 73	88	1 80	4 00	80	4 67	4 60	1 65	5 10	7 5	1 05	29 93	26 65
Office travel etc.							57 41	18 00			8 55	396 73	475 77	
Typewriter inspection and repairs			5 00	50		2 25			50			7 50	15 75	
Miscellaneous	1 50	1 75	1 20	35			1 50	1 00	9 15		10 20		26 65	

[illegible]

MATERINITY HOSPITAL FUND

[illegible]

DISBURSEMENTS—Continued.
STATE AGENCY FUND.

	Oct., 1910	Nov., 1910	Dec., 1910	Jan., 1911	Feb., 1911	March, 1911	April, 1911	May, 1911	June, 1911	July, 1911	Aug., 1911	Sept., 1911	Total.	Grand Total.
Salaries—														
Agents	\$365 00	\$404 36	\$445 00	\$445 00	\$445 00	\$445 00	\$415 00	\$445 00	\$445 00	\$419 24	\$409 50	\$327 35	\$4,890 45	
Clerks	45 00	45 00	45 00	45 00	45 00	45 00	45 00	45 00	45 00	45 00	45 00	75 00	570 00	\$5,460 45
Traveling expenses—														
W. S. Reynolds	33 30	4 85	55 55	19 65	6 70	55 85	24 90	77 70	82 85	20 35	14 45	37 75	433 90	
J. August Brown	96 00	101 05	98 00	100 25	113 40	123 25	118 90	125 15	32 95	24 50	56 05	60 90	1,051 00	
Mary Carmichael	81 20	65 95	71 60	72 30	104 60	76 25	122 70	70 05	66 65	55 85	82 30	86 30	955 75	
Leila M. Thomas	54 58	74 55	93 60	74 35	82 20	111 55	113 55	116 79	82 20	77 85	77 10		958 62	
Mabel C. Atwood		30 55	53 85	138 22	102 71	87 40	109 15	115 30	143 68	44 85	139 44	95 85	1,061 00	
Nell W. Dunkle	107 35	107 70	116 05	99 15	97 38	107 90	85 20	127 00	83 10	115 35	81 90	92 90	1,220 98	5,681 25
Office expenses—														
Telephone		10 00		10 00			10 00			10 00			\$40 00	
Rent		6 80	95	7 15	3 70	3 70	3 85	12 20	6 60	4 55	3 40	5 70	58 60	
Long distance				7 72	1 51			95				3 70	3 70	
Telegrams											15 00	152 25	167 25	
Office furniture				3 10		40	4 00	6 40	54			25	14 69	
Miscellaneous														284 34
W. B. Burford, stationery and printing	10 00	9 19	40 49			3 00	107 20	97 39	6 50			270 42		436 99
Government envelopes	107 20					100 00		21 00				214 40		428 80
Postage	25 00											60 60		206 60
Total	\$925 23	\$860 00	\$990 09	\$984 89	\$972 20	\$1,129 30	\$1,159 75	\$1,259 93	\$995 07	\$817 54	\$924 14	\$1,480 19		\$12,498 43

AGENT.	Hotel.	Transportation.	Livery and Conveyance.	Telegraph and Telephone.	Total.
W. S. Reynolds.....	\$137 90	\$255 10	\$39 45	\$1 45	\$433 90
J. August Brown.....	368 75	372 60	302 80	6 85	1,051 00
Mary Carmichael.....	359 40	311 05	279 30	6 00	955 75
Leila M. Thomas	313 25	314 53	326 04	4 80	958 62
Nell W. Dunkle.....	411 03	452 25	349 80	7 90	1,220 98
Mabel C. Atwood.....	356 64	364 61	332 70	7 05	1,061 00
Total.....	\$1,946 97	\$2,070 14	\$1,630 09	\$34 05	\$5,681 25

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Sixty-Eighth Annual Report

OF

The Indiana State School for the Deaf

For the Fiscal Year Ending
September 30, 1911

To the Governor

INDIANAPOLIS :
WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING
1912

THE STATE OF INDIANA,

EXECUTIVE DEPARTMENT,

FEBRUARY 5, 1912.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF THE AUDITOR OF STATE,

INDIANAPOLIS, February 13, 1912.

The within report⁴, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,

Auditor of State.

MARCH 5, 1912.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,

Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, March 5, 1912.

L. G. ELLINGHAM,

Secretary of State.

Received the within report and delivered to the printer, March 5, 1912.

ED D. DONNELL,

Clerk Printing Board

LETTER OF TRANSMITTAL.

THE INDIANA STATE SCHOOL FOR THE DEAF, INDIANAPOLIS.

To the HON. THOMAS R. MARSHALL, Governor of the State of Indiana:

Sir—In compliance with law, and by direction of the Board of Trustees, I have the honor to lay before you the annual report of the board and superintendent for the fiscal year ending September 30, 1911.

Respectfully,

WILLIAM P. HERRON,
Secretary.

BOARD OF TRUSTEES.

President.

HENRY B. BROWN.....Valparaiso
Term expires Jan. 1, 1913.

Vice-President.

ELE STANSBURY.....Williamsport
Term expires April 10, 1915.

Treasurer.

WILLIAM GEAKE.....Ft. Wayne
Term expires January 1, 1915.

Secretary.

WILLIAM P. HERRON*.....Crawfordsville
Term expires January 1, 1912.

* Reappointed January 1, 1912, for a term of four years.

EDUCATIONAL.

RICHARD OTTO JOHNSON, Superintendent.

Instructors.

Supervising Principal Primary Grades. EVALYN B. HEIZER.
Supervising Principal Oral Work. . . . FRANCES L. GLENN.
Supervising Teacher Industries.
Superintendent Sabbath School. HENRY BIERHAUS.
Secretary Sabbath School. AUGUST JUTT.
Leader Christian Endeavor Societies }
Curator Museum, etc. } UTTEN E. REED, M. A.
Librarian ALBERT BERG, M. A.
Director Physical Exercises. AUGUST JUTT.
Teachers' Training Class in charge of { FRANCES L. GLENN.
AMELIA DEMOTTE.*

Manual Class^es.

HENRY BIERHAUS.	ALBERT BERG, M.A.
SIDNEY J. VAIL.	ANNA HENDRICKS.
AUGUST JUTT.	IDA B. KINSLEY.
N. FIELD MORROW, B.A.	IDA B. WESTFALL.
ORSON ARCHIBALD, B.A.	FANNIE B. SHIDEIER.

Oral Classes.

UTTEN E. REED, M.A.	NELLE E. ARBAUGH.
NORA V. LONG.	LEORA CARVER.
FRANCES THOMPSON.	K. WHITLEY MURPHY.
AMELIA DEMOTTE.*	LENA DIXON.
MARGARET I. BOLYN.	JOLLETTE CONSTANTINE.
FRANCES L. GLENN.	

Kindergarten Classes.

SADIE M. E. MCARDLE in charge.

In training (Normal students.)	{	F. JULIA CORY.
		ETTA L. MUELLER.
		EDNA L. SHRIVER.
		EDNA KAVANAUGH.
		HELEN DIXON.

Drawing and Art Classes.

MARY CORWIN.

Educational-Industrial Classes.

Printing	JOHN E. TRAVIS.
Woodworking, etc.	JOHN P. BAKER.
Harnessmaking	} N. LEE HARRIS.
Shoe and Leather Work.	
Tinsmithing	
Domestic Science {	Cooking
	Sewing KATE GORMAN.

*Temporarily absent.

BUSINESS AND HOUSEHOLD.

Superintendent	RICHARD OTTO JOHNSON.
Secretary to Superintendent.....	EVA M. RICE.
Auditor	AUGUST B. GOOLEY.
Storekeeper	WILLIAM E. TODD.
Matron	MRS. C. E. JOHNSON.
Assistant Matron and Housekeeper....	MARY E. COOK.
Physician	CHARLES S. GOAR, M. D.
	{ JOHN W. PATTERSON.
Supervisors of Boys.....	{ JAMES VAHEY.
	{ B. M. SCHOWE.
	{ MRS MARGARET BRAUN.
	{ MRS MAGGIE MCCAULEY.
Supervisors of Girls.....	{ EMMA OTTENBACHER.
	{ ELVA COBBS.
	{ ORIE M. BOYD.
Usher	A. BELLE HANDY.
Nurses	RUTH COBBS-CARRIE BLECK.
Watchman	JAMES W. RUSSELL.
Night Woman.....	ADDIE DYER.

Industrial.

Foreman of Grounds.....	WILLIAM LANGSTAFF.
Engineer	OLIVER BRITTON.
Electrician	EMERY HASTY.

TERM CALENDAR FOR 1911-1912.

Annual session begins October 11.

Annual session ends June 5.

First term ends November 30.

Second term ends January 31.

Third term ends June 1.

Grade days—December 1, February 1; second and third terms begin.

Mid-year examinations (written) begin January 29.

Final examinations (written) begin May 13.

Graduation exercises—June 5.

Departure for home—June 6.

Holidays for Pupils.

November 30—Thanksgiving day, Thursday.

December 25-26—Christmas, Monday, Tuesday.

January 1—New Year, Monday.

February 22—Washington's birthday, Thursday.

May 30—Decoration day, Thursday.

June 4—Lawn Social, Tuesday.

June 5—Graduation exercises, Wednesday.

June 6—Departure for home.

REPORT OF BOARD OF TRUSTEES.

To the Honorable Thomas R. Marshall, Governor of Indiana:

Sir—The Board of Trustees of the Indiana State School for the Deaf submits for your consideration and action this report for the fiscal year ending September 30, 1911. The personnel of the Board remains the same as at date of its last annual report, two of the members thereof, Messrs. William Geake and Ele Stansbury, having been reappointed to their positions by yourself.

The regular appropriations for the year amounted to \$76,000—for maintenance, \$70,000, and for industries, \$6,000. At the close of the year the Governor's Contingent Fund was drawn upon for \$1,362.97, account maintenance, in order to avoid having a deficit, an explanation of which (page 16) will be found in the superintendent's report. There was expended \$76,191.84—for maintenance, \$71,362.97, and for industries, \$4,828.87. The balance unexpended, account industries, amounted to \$1,171.13, which was returned to the General Fund.

Cash earnings received during the year amounted to \$497.20, which was paid into the State Treasury; and clothing accounts against divers counties for various pupils, amounting to \$780.86, were filed with the State Treasurer for collection. Neither the earnings nor the collections for clothing inured to the benefit of the school, but passed into and were credited to the General Fund.

Combining the cash earnings and the clothing receipts with the unexpended balance of the Industries Fund, making a total of \$2,449.19, all of which goes into the General Fund of the State as a credit against the appropriations made, it will be seen that the advance from the Governor's Contingent Fund is returned, with \$1,086.22 in addition thereto.

The regular appropriations for the maintenance of the school were increased by the last General Assembly and for each year of the biennial term beginning October 1, 1911, there will be available for use \$87,100, divided into three funds, as follows: for maintenance, \$79,500, for industries, \$6,000, and for repairs, \$1,600.

We are pleased to report that the school continues to maintain its high grade of efficiency, with a faithful and competent corps of instructors and employes under the executive direction of its superintendent, who has had long and successful experience in the profession and is of national reputation as an educator of the deaf. As indicative of the standing of Indiana's school, it may be stated that at this time Superintendent Johnson and the school are honored with the following positions held by him: President Conference of Superintendents and Principals of American Schools for the Deaf; Chairman Executive Committee of Conference; Director American Association to Promote Teaching of Speech to the Deaf; Chairman Kindergarten Section Convention of American Instructors of the Deaf; member National Society for Promotion of Industrial Education; member of various standing committees of professional associations; and active member of the National Education Association.

For detailed information concerning receipts and disbursements for maintenance and industries, concerning expenditures for clothing, receipts of cash earnings, farm and garden products, per capita expense; for information concerning the new school in Forty-second Street; and for various other matters, fiscal and scholastic, your attention is called to statements and exhibits in the superintendent's report hereto attached and made part of this report.

Respectfully submitted,

HENRY B. BROWN.
ELE STANSBURY.
WILLIAM GEAKE.
WILLIAM P. HERRON.

SUPERINTENDENT'S REPORT.

To the Board of Trustees:

Gentlemen—I submit for your consideration the following statement concerning financial transactions, scholastic record and other matters pertaining to the Indiana State School for the Deaf for the fiscal year ending September 30, 1911, it being my twenty-third annual report as superintendent and the sixty-eighth annual report of the school.

At the close of the fiscal year we were still occupying the old buildings in East Washington street with the old equipment; no pupils were present and the school was not in operation, the opening of the annual session of 1911-12 having been deferred to October 11 on account of incomplete conditions at the new place. This report therefore is based upon conditions then existing, and the inventory of real and personal property does not include grounds, buildings or equipment in connection with the new school now occupied, all of which will be included in and fully set forth in the next annual report for the year ending September 30, 1912.

Because of contemplated removal and arrangements therefor, the last annual session closed on May 31, 1911, one week earlier than the regular date, June 7, as set at the beginning of the year. Concerning the opening of the new school in October and for other matters pertinent thereto, your attention is called to a statement in a subsequent part of his report under caption, "The New Institution."

TRUSTEES REAPPOINTED.

During the year the terms of office of two members of the Board of Trustees of the School expiring by limitation—Treasurer William Geake, of Ft. Wayne, January 1, and Vice-President Ele Stansbury, of Williamsport, April 10—both were reappointed by Governor Thomas R. Marshall, each for a term of four years. The patrons of the school and the friends of the cause for which it stands, appreciate this thoughtful and kindly action of the Governor, believing that the continued service of those reappointed will redound to the welfare of the school.

THE OFFICIAL ROSTER.

During the year and since the opening of the school in October a number of changes have occurred. Among the teachers, three have retired from service—Miss Amelia DeMotte (temporarily) on account of personal illness, Miss Emma Roberts, because of family illness, and Miss Nelle C. LaGrange, who was married during the summer. Miss Sadie M. E. McArdle, formerly of the Belleville, Ontario School (Canada), has been appointed chief kindergartner.

Misses A. Esther Peek and Elizabeth I. Fenwick, normal students, having completed in May the full two-year course in training, accepted positions as teachers in the Western Pennsylvania and New Mexico schools, respectively. The Normal Class this coming year will consist of Misses F. Julia Cory, Etta L. Mueller and Edna L. Shriver, who return to complete their second year in training, and Misses Edna Kavanaugh, of Kentucky, and Helen Dixon, of Pennsylvania, who will enter upon the first year of the course.

Other changes have occurred as follows: Henry Vickrey and Wilbur Vickrey, boys' supervisors; Amy Paddock, girls' supervisor; Charles Hamant, engineer, and Jesse Neal, electrician, have been succeeded respectively by John W. Patterson, B. M. Schowe, Elva Cobbs, Oliver Britton, and Emery Hasty. Miss Orie M. Boyd, a graduate of this school, was also employed as an additional girls' supervisor.

ADMISSIONS, ATTENDANCE, ETC.

The following tabulations will show admissions, discharges, attendance and non-attendance for the year.

As the last scholastic year began on September 28, just two days prior to the close of the fiscal year and during which time only a portion of the old pupils had returned and no new ones had been received, the reported enrollment for that year was carried up to October 31 so as to show the school attendance including new pupils; and for the same reason, the annual session this year not beginning until October 11 because of removal, the record again is carried up to October 31. In this connection, however, it may be stated that receipts, expenditures, daily average attendance, per capita expense, etc., are given for the fiscal year beginning October 1, 1910, and ending September 30, 1911.

	<i>Boys.</i>	<i>Girls.</i>	<i>Total.</i>
Actual attendance October 31, 1910.....	160	149	309
Readmitted after absence of year or more.....	1	3	4
New pupils—October 31, 1910-October 31, 1911.....	27	21	48
	<hr/>	<hr/>	<hr/>
Total enrollment	188	173	361
Discharged during period	15	9	24
	<hr/>	<hr/>	<hr/>
Leaving enrolled for new year.....	173	164	337
Actual attendance, October 31, 1911.....	154	150	304
	<hr/>	<hr/>	<hr/>
Showing absentees from last school year.....	19	14	33

CAUSES OF DISCHARGE.

	<i>Boys.</i>	<i>Girls.</i>	<i>Total.</i>
Expiration of time.....	1	..	1
Death at home.....	1	..	1
Removal from State.....	..	1	1
Incendiarism	2	..	2
Nonattendance	3	2	5
Graduation	8	6	14
	<hr/>	<hr/>	<hr/>
Total	15	9	24

CAUSES OF NONATTENDANCE.

	<i>Boys.</i>	<i>Girls.</i>	<i>Total.</i>
Married	1	1
Defective eyes	1	..	1
Working at home	2	2
Not inclined to school.....	1	1	2
Working	5	..	5
Removal from State.....	3	3	6
Will return later	6	3	9
Unknown	3	4	7
	<hr/>	<hr/>	<hr/>
Total	19	14	33

RESIDENCE OF PUPILS.

Your attention is called to a tabulated statement, arranged by counties, in a subsequent part of this report, showing the number of pupils received, the number discharged, and the number remaining entitled to the benefits of the school. The number entitled to its benefits is larger than the number shown at the end of any one year, for this statement refers only to those who have been in attendance at some time during the fiscal year; those of the preceding

years, although entitled to readmission, being dropped from consideration; these number from twenty to thirty yearly. An inspection of the statement will show that pupils have been received from eighty of the ninety-two counties, those not represented being Brown, Crawford, Decatur, Franklin, Jackson, Martin, Ohio, Porter, Pulaski, Scott, Union and Warren.

GRADUATIONS.

At the close of the school year, on May 31, the usual commencement exercises were held, six young women and eight young men, all of whom had completed the full course of study with honor to themselves and with credit to the school, being presented for graduation honors. Their names, residence, and subjects of essays or recitations, follow:

Class Sentiment—"Ever Upward."

Concert Recitation—"A Song for the Seasons,"

Luella Fay Grise, Bremen.

Lillian Elsie Murphy, Muncie.

Orpha Blanche Yoder, Wakarusa.

Louise Hunter, Indianapolis.

Essay (oral)—"Industrial Education for the Deaf".....

Frederick Leroy Frazer, Richmond.

Recitation—"The Hand of Lincoln"...Elmer Jacob Burford, Indianapolis.

Recitation (oral)—"In the Heart of the Woods"...Agnes Eva Jones, Albany.

Concert Recitation—"The Farmer is King,"

George Franklin Burford, Indianapolis.

Stanley Miles Davis, Pimento.

Earl Jerome Hinton, Greencastle.

Fred Leander Shaffer, Bluffton.

Lee Ellison Dazey, Indianapolis.

Narvle Hughes, Columbus.

Essay—"A Winter Idyl".....Ida Gaynell Clark, Aurora.

Recitation by the Class—"The Star Spangled Banner."

The address of the day was delivered by the Hon. Charles A. Bookwalter, of Indianapolis, and the presentation of diplomas was made by the Hon. Ele Stansbury, Vice-President of the Board of Trustees.

SCHOOLS FOR THE DEAF.

The number of pupils enrolled in schools for the deaf in this country is 13,579, and they are taught by 1,706 instructors, of whom 476 are men and 1,230 women. There are 148 schools for the deaf in the United States. Of them 62 are State public schools, 66 are public day schools and the remaining 20 are denominational and private schools. In the 62 State schools 11,599 pupils, or about 85 per cent. of the total number, were enrolled during the last fiscal year. The 66 public day schools had a total of 1,420 pupils or about 10 per cent. of the total. The enrollment in the denominational and private schools amounted to 560, which is about 5 per cent. of the total. Of the total number enrolled in all schools, 9,302 were taught speech, or 68 per cent. of the whole. In all schools the total number of those who have received instruction since the schools were opened aggregate 68,064.

The 62 State schools in the United States have invested in lands and buildings nineteen million dollars, and during the past year expended for support, improvements, etc., about four million dollars.

Our imperial republic to the north, Canada, has seven schools supported by their respective provinces and voluntary contributions. The attendance was 892, with 160 instructors—72 men and 88 women. The total number of those who have received instruction in the schools is 5,012. The investment in lands and buildings amounts to two million dollars or more, and last year's expenditures for support and improvement was about two hundred thousand dollars.

RECEIPTS AND DISBURSEMENTS.

The regular appropriations for maintenance, industries, and repairs, for each year of the biennial term closing September 30, 1911, were as follows:

	1909-10.	1910-11.
Maintenance	\$70,000 00	\$70,000 00
Industries	5,000 00	6,000 00
Repairs (nothing).		

and in addition thereto, for maintenance, \$195 per capita per annum for each pupil present over a daily average of 325 each month, which is designated as "Excess Allowance." There has been nothing received on this account for several years; and such an

allowance is not provided for in the appropriation for the new biennial term beginning October 1, 1911.

The disbursements for the past year were, for maintenance, \$71,362.97 (which included repairs, \$276.73); and for industries, \$4,828.87. Cash earnings received amounted to \$497.20, which were paid into the State Treasury, and clothing accounts against divers counties for various indigent pupils, amounting to \$780.86, were filed with the State Treasurer for collection. Neither the earnings nor the collections for clothing could be used for the benefit of the Institution, but passed into and were credited to the General Fund. These various accounts are set out in detail in exhibits in a subsequent part of this report, to which your attention is called for further information.

It will be noted that expenditures on account maintenance exceeded the appropriation by \$1,362.97, and this amount was advanced by the Governor from a contingent fund at his disposal, thus allowing us to close the year without an actual deficit. That a shortage for the year was very probable was discussed in my last annual report, and the attention of the Legislative Visiting Committee was also called thereto, with the request that a specific appropriation be recommended to and made by the General Assembly meeting within the year to cover a probable deficit of \$3,750. Nothing was done. The most rigid and severe economy was practiced along all lines to close the year within the appropriation, with the result that the anticipated shortage of \$3,750 was reduced to \$1,362.97. In two items alone the increased expenditure for the year amounted to \$3,566.25—food supplies \$1,114.22, fuel \$2,452.03. The increase in the former was due to constantly advancing prices and in the latter, to two causes: We began the preceding year (1910) with nearly \$2,000 worth of coal on hand, and last year (1911), without a pound. In the former year we paid for coal \$1.63 per ton; in the latter, \$2.15, an increase of fifty-two cents.

NEW APPROPRIATIONS.

The last General Assembly made new appropriations for each year of the biennial term ending September 30, 1913, as follows:

For maintenance	\$79,500 00
For industries	6,000 00
For repairs	1,600 00

with no "excess allowance" for increasing attendance.

NET AND GROSS PER CAPITA EXPENSE REGULAR FUNDS.

For Fiscal Year Ending September 30, 1911.

Gross maintenance for year.....	\$71,362 97
Less value of clothing, etc., furnished indigent pupils, and which will be returned to State by counties...	\$780 86
Less cash earnings received and paid into general fund by institutions	497 20
	<hr/> 1,278 06
Net cost of maintenance.....	\$70,084 91
The cost of industries.....	4,828 87
	<hr/>
Total net cost to State for year.....	\$74,913 78
Average daily number of pupils, 296.729.	
Net per capita cost of maintenance*.....	\$236 19
The per capita cost of industries.....	16 27
	<hr/>
Total net per capita cost**.....	\$252 46

During the year the number of different pupils enrolled was 361. If this number should be used as the divisor, the total net per capita cost would be \$207.51, instead of \$252.46; the total gross per capita cost \$211.05 instead of \$256.77. But whichever one of these per capitas be used, the fact is that it is a low one in comparison with those of other State schools for the deaf throughout the country.

In conclusion, your attention is called to Course of Study in detail, to Rules Concerning Admissions, to statements showing pupils by counties and Roster of pupils, to Tables 1 to 9 and Exhibits 1 to 10, inclusive, giving classified and itemized statements of a fiscal nature for the year ending September 30, 1911, and to a statement concerning the new institution in Forty-second Street, all of which are hereinafter set out and made part of this report.

Respectfully submitted,

RICHARD O. JOHNSON, Superintendent.

* Gross per capita cost, \$240.49.

** Total gross per capita cost, \$256.77.

THE NEW INSTITUTION.*

Referring to the building of the new school in Forty-second Street, the story of which now enters upon its eighth annual chapter, it is further to be reported that since the seventh chapter was written in the annual report of the school for 1910, the General Assembly of 1911 made further appropriations, which are entered below under "Credits," the amounts under "Debits" representing indebtedness created against the various items from June 1 to October 31, 1911.

	<i>Credits.</i>	<i>Debits.</i>
1. Outside lighting, walks and drives, grading, fencing and laundry equipment.....	\$15,000 00	\$10,845 30
2. Sewers and connections.....	8,000 00	4,719 00
3. Residence	10,000 00	10,000 00
4. Removal and miscellaneous expense.....	2,500 00	2,043 19
5. Deficit to be paid.....	3,360 38	3,360 38
6. Insurance premiums	850 32	850 32
	<hr/>	<hr/>
	\$39,710 70	\$31,818 19

Vouchers were allowed in favor of the various claimants for the above listed indebtedness in full on November 9, 1911, except that \$100 in Item 1 and \$375 in Item 3 were withheld until final settlement with contractors. These appropriations were not available until October 1, 1911, but contracts were made and the work prosecuted during the summer months under opinion of the Attorney-General of the State, who held that this could be done provided contractors would wait until the appropriations became available for payment of their claims. This the contractors agreed to do, and the work was begun in June.

TOTAL RECEIPTS AND DISBURSEMENTS TO NOVEMBER 15, 1911.

Appropriation 1905.....	\$315,000 00	
Appropriation 1907.....	367,277 00	
Appropriation 1909.....	88,985 00	
Appropriation 1911.....	39,710 70	
	<hr/>	\$810,972 70
Reverting to State Treasury, unexpended, to No- vember 15, 1911 (see below).....	\$15,091 87	
Expended to November 15, 1911.....	787,513 32	
	<hr/>	\$802,605 19
Balance available for use in 1912.....		\$8,367 51

* To November 15, 1911.

Account sewer and connections.....	\$3,281 00	
Account residence	375 00	
Account lighting, etc.....	4,254 70	
Account removal and miscellaneous expense.....	456 81	
		<hr/>
		8,367 51

STATEMENT FOR YEAR.

October 1, 1910—Balances carried forward for use
in 1911:

Land sales account (commission).....	\$1,821 50	
Mechanical equipment	2,404 32	
Barn	800 00	
Storehouse	7 90	
General equipment	20,000 00	
		<hr/>
		\$25,033 72

September 30, 1911—Disbursements during year
1911:

Land sales account (commission).....	\$1,694 41
Mechanical equipment	1,698 08
Barn	782 00
General equipment	19,999 44
	<hr/>
	\$24,173 93

Reverting to General Fund September 30, 1911:

Land sales account (commission).....	\$127 09	
Barn	18 00	
Storehouse	7 90	
General equipment	56	
Mechanical equipment (1909).....	706 24	
		<hr/>
		\$25,033 72

Total Net Cost to State to November 15, 1911.

Appropriation to date.....	\$810,972 70
Less payments into General Fund—unexpended...	\$15,091 87
From sale of old location.....	194,746 00
Interest on land sales notes.....	4,711 11
Interest, etc., on bond investment.....	7,178 08
Less rents, new place.....	1,000 00
Sale of crops and logs, new place.....	363 79
	<hr/>
	223,090 85
Total net cost to State.....	<hr/>
	\$587,881 85

In 1903, when the act authorizing the sale of the old place and the building of the new institution was passed, it included an appropriation of \$250,000, which, however, was not made use of, and it reverted to the General Fund when the appropriation of 1905 was made; it is not included therefor in the above statement.

REVERTING TO GENERAL FUND.

Certain unexpended balances of various appropriated funds, referred to above, and which remained unused at the close of the fiscal years named, have reverted to the State Treasury, as follows:

Mechanical equipment—1909	\$706 24
Sewers and connections—1910.....	8,000 00
Outside lighting—1910.....	1,500 00
Fencing—1910	1,500 00
Outside fire and water system—1910.....	1,107 55
Grading—1910	769 75
Architects—1910	490 14
Girls' dormitories—1910.....	409 44
Boys' dormitories—1910.....	339 25
Advertising, clerk and miscellaneous—1910.....	115 95
Land sales (commission)—1911.....	127 09
Barn—1911	18 00
Store house and cold storage—1911.....	7 90
General equipment—1911	56
<hr/>	
Total	\$15,091 87

As stated elsewhere, the annual session opened on Wednesday, October 11. The buildings at that time were not in proper condition for occupancy by the school, but it was deemed best not to defer the opening to a later date because of the three weeks of the school term already lost. By strenuous labor, almost day and night during the summer, things were whipped into reasonable shape for the opening—and our life in the new place was begun. Since then the work of arrangement and rearrangement, of adjusting one new condition to another, has gone steadily on, and order is now beginning to show out of chaos; but necessarily it will take yet many other weeks before the orderly movement of things will be achieved.

In this connection it may be stated that had sole dependence been placed upon legislative appropriations, the school could not have opened in the new place for yet another year. The last General Assembly made all the appropriations—for sewers and connections, walks, drives, lighting, laundry, and for removal expense, etc., available October 1, practically at the close of the building season. But instead of waiting for this late date to begin operations, contracts were let so that the work could be prosecuted during the summer months, contractors agreeing to wait for their

money until it should become available. For the payment of absolutely necessary expenses, such as for labor, materials, and removal expenses of varied nature from time to time and which simply had to be paid on the spot, as it were, the Superintendent and the Trustees advanced the necessary amount themselves, so anxious were they to avoid passing another year in the dilapidated, disease-breeding place in East Washington street—a fit place for a terrible conflagration with great loss of life. And so it is we are permitted to occupy our new home this year.

Instead of our buildings and grounds having already cost the State a million or a million and a half, as has been frequently stated, the total gross appropriations by the Legislature to date have amounted to \$810,972.70. As against this we have returned to the General Fund of the State \$223,090.85—proceeds from the sale of the old place, interest and bond investment, unexpended appropriations, etc., thus leaving the net cost to the State at this time \$587,881.85, a part of which is still unexpended. For the completion of the school according to original plans, will require additional appropriation of \$243,027.30—for erection and equipment of boys' and girls' industrial buildings; additional dormitory wings; hospital building and isolation wards; dairy barn; greenhouse, administration or office building, and additional boiler capacity, etc.—which will make the net cost to the State for land, buildings and complete equipment, \$830,909.15.

RICHARD O. JOHNSON.

Superintendent.

SPECIAL INFORMATION.

At request of the Governor, after consultation on his part with the State Board of Accountants and the Board of State Charities, and in order to comply as far as may be with the law (Sec. 8, Chap. 98, Acts 1907) requiring that the annual reports submitted to the Governor shall be uniform in character, certain tabulations are herewith submitted, to wit:

1. Summary of statistics.
2. Summary of expenditures by months.
3. Table of appropriations and expenditures.
4. Classified expenditures.
5. Statement of earnings by months.
6. Summary of inventory.
7. Movement of population since 1844 by periods.
8. Movement of population since 1844 by years.
9. Table of officers, teachers and employes.

Your attention is called to these tables immediately following.

THE SUPERINTENDENT.

TABLE No. 1.

SUMMARY OF STATISTICS FOR THE YEAR ENDING SEPTEMBER
30, 1911.*

(Prepared in conformity to resolution adopted by the National Conference of Charities and Correction,
Philadelphia, May, 1906.)

MOVEMENT OF POPULATION.

	<i>Boys.</i>	<i>Girls.</i>	<i>Total.</i>
Number of pupils enrolled October 31, 1910..	168	169	337
Temporarily absent from preceding year.....	8	20	28
Number of pupils received during year (4 old, 48 new)	28	24	52
Number of pupils discharged during year....	15	9	24
Number of pupils enrolled October 31, 1911..	154	150	304
Temporarily absent	19	14	33
Daily average attendance of pupils for year ending September 30, 1911.....	156.057	140.672	296.729
	<i>Men.</i>	<i>Women.</i>	<i>Total.</i>
Average number of officers and employes....	32	56	88

EXPENDITURES.**

	<i>Gross Per Capita.</i>	<i>Total.</i>
Ordinary Expense—		
Salaries and wages.....	\$151.672	\$45,005 41
Subsistence	48.212	14,306 00
Clothing	2.615	776 02
Office, domestic and outdoor expense.....	54.273	16,104 41
Total	\$256.772	\$76,191 84
Extraordinary Expense***—		
New buildings and furnishings of same (none).		
Permanent improvements (none).		
Grand total expenses.....		\$76,191 84
Receipts and earnings.....		1,278 06
Net total expenses.....		\$74,913 78
Net per capita		252.467

* Vide "admissions, attendance, etc.," page 12.

** Fiscal year, October 1, 1910–September 30, 1911.

*** Vide second paragraph, page 11.

TABLE No. 2.

Summary of Expenses, October 1, 1910, to September 30, 1911.

FUND.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total
Maintenance.....	\$7,373 55	\$6,878 88	\$8,598 16	\$7,598 57	\$6,588 17	\$7,688 08	\$7,202 62	\$7,051 78	\$5,367 93	\$2,207 71	\$2,167 18	\$2,140 34	\$71,362 97
Industrial.....	503 90	419 58	279 39	336 11	290 98	282 81	335 74	286 52	221 54	194 00	281 30	1,397 00	4,828 87
Total.....	\$7,877 45	\$7,298 46	\$8,877 55	\$7,934 68	\$6,879 15	\$7,970 89	\$7,538 36	\$7,338 30	\$5,589 47	\$2,401 71	\$2,448 48	\$3,537 34	\$76,191 84

TABLE No. 3.

Appropriations and Expenditures.

FUND.	Act Approved.	Regular or Specific.	Amount Available for Current Year.	Expended During Year.	Balance.	
					Reverting to State Treasurer.	Available for Future Use.
Maintenance.....	March 9, 1909.....	(Regular..... Governor's Contingent Fund.....	\$70,000 00 1,362 97	\$70,000 00 1,362 97		Nothing.
Industrial.....	March 9, 1909.....	Regular.....	6,000 00	4,828 87	\$1,171 13	Nothing.
Total.....			\$77,362 97	\$76,191 84	\$1,171 13	

TABLE No. 4.

CLASSIFIED EXPENDITURES, OCTOBER 1, 1910, TO SEPTEMBER
30, 1911.

CURRENT EXPENDITURES.

Administration—	<i>Amount.</i>	<i>Per Capita.</i>
Trustees or directors.....	\$1,200 00	\$4.0440
Officers	6,884 91	23.2026
Teachers	21,182 82	71.3881
Industrial teachers	2,669 94	8.9979
Attendants	3,923 49	13.2224
Other employes	9,144 25	30.8168
Guards
Total	\$45,005 41	\$151.6718
Subsistence—		
Fresh meats	\$3,467 72	\$11.6865
Salted meats and lard.....	823 34	2.7747
Fish (fresh and cured), oysters, etc.....	119 10	.4014
Butter, eggs and poultry.....	2,151 13	7.2495
Vegetables	829 07	2.7940
Fresh fruits	377 22	1.2713
Dried fruits	251 92	.8490
Canned goods	1,108 35	3.7352
Breadstuffs, cereals, beans, etc.....	3,749 15	12.6349
Vinegar and syrup.....	159 87	.5388
Tea, coffee and sugar.....	865 58	2.9171
Milk
Other food supplies.....	403 55	1.3599
Total	\$14,306 00	\$48.2123
Clothing, Etc.—		
Clothing	\$562 29	\$1.8949
Shoes	125 51	.4230
Tailor and sewing room supplies.....
Miscellaneous	88.22	.2973
Total	\$776 02	\$2.6152
Office, Domestic and Outdoor Departments—		
School supplies	\$453 96	\$1.5299
Library, newspapers and periodicals.....	35 50	.1196
Stationery and printing.....	109 66	.3696
Supplies for industrial department.....	2,158 93	7.2758

TABLE No. 4—Continued.

Office, Domestic and Outdoor Departments—Continued.			<i>Amount.</i>	<i>Per Capita.</i>
Furniture, fixtures, bedding and other household equipment	694 61	2.3409		
Laundry supplies, soap and other cleansers...	923 49	3.1124		
Medicines, instruments and other sick ward supplies	554 90	1.8701		
Postage, telegraph, telephone, etc.....	216 78	.7305		
Freight and transportation.....				
Stable, farm, garden, provender, etc.....	918 97	3.0970		
Ice	471 00	1.5873		
Trustees' traveling expense.....	404 10	1.3618		
Music and amusements.....	141 16	.4757		
Maintenance repairs	276 73	.9326		
Fuel	6,088 26	20.5179		
Light	1,002 54	3.3786		
Engineer's supplies	153 51	.5173		
Annual reports	158 12	.5329		
Water	250 00	.8425		
Other classifications	1,092 19	3.6807		
Total	\$16,104 41	\$54.2731		
Ordinary Repairs and Minor Improvements—				
Materials				
Labor				
Total				
Grand total of current expenditures.....	\$76,191 84	\$256.7725		
Less earnings paid into State Treasury....	\$497 20			
Less amounts due from counties for clothing, maintenance, etc	780 86			
Total	1,278 06	4.3072		
Net cost to State.....	\$74,913 78	\$252.4653		
Extraordinary Expenditures—				
New buildings and furnishings.....				
Permanent improvements				
Total extraordinary expenditures.....				

Average attendance for year ending September 30, 1911, 296.729.

TABLE No. 5.

Statement of Earnings.

MONTHS.	SOURCE OF RECEIPTS.		Total.
	Industrial.	Ordinary.	
October.....	\$66 60	\$6 50	\$73 10
November.....	84 45	39 40	123 85
December.....	20	17 79	17 99
January.....	39 85	6 00	45 85
February.....	33 80		33 80
March.....	48 30		48 20
April.....	41 00	4 15	45 15
May.....	77 25	5 00	82 25
June.....		20 50	20 50
August.....	41	6 00	6 41
Total.....	\$391 86	\$105 34	\$497 20

Earnings Deposited with State Treasurer.

DATE	Amount.	Number of Quietus.
November 7, 1910.....	\$73 10	2785
December 5, 1910.....	123 85	2995
January 3, 1911.....	17 99	3158
February 6, 1911.....	45 85	3294
March 7, 1911.....	33 80	3475
April 3, 1911.....	48 30	3660
May 1, 1911.....	45 15	3859
June 5, 1911.....	82 25	4020
July 3, 1911.....	20 50	4194
September 5, 1911.....	6 41	4277
Total.....	\$497 20	

STATEMENT No. 6.

*Inventory.**

Real estate, Crown Hill, three lots.....	\$825 00
Buildings	
Equipment	23,111 68
Total	\$23,936 68

* Vide second paragraph, page 11.

TABLE No. 7.

MOVEMENT OF POPULATION FROM OPENING OF INSTITUTION, OCTOBER 1, 1844, TO OCTOBER 31, 1911.

FISCAL YEARS.	Received New Pupils.		DISCHARGED OR WITHDRAWN. (In School October 31, 1911—154 boys, 150 girls.)								Died, Included Under Discharges.		Average Yearly Enrollment.			Average Enrolled Close of Year.			Average Present Close of Year.			Daily Average Attendance.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
			Graduates.		Discharged.		Non- Attendance.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.	M.	F.	No re- cord.	M.	F.	No re- cord.	M.	F.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
1844-1884	915	643	No re- cord.	751	479	No re- cord.*			No re- cord.		No re- cord.		No re- cord.		No re- cord.		No re- cord.		No re- cord.		No re- cord.		No re- cord.		No re- cord.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

*Entering 1885—174 boys, 154 girls.

A complete statement of the movement of population (of pupils) since the opening of the school as a state institution October 1, 1844, up to October 31, 1911, is given above. How many of the 1,558 pupils of the first period (1844-1884) were graduated, how many discharged for one cause or another, and how many simply dropped out although entitled to return for further schooling, is unknown. All are counted as discharged excepting 328, who appear to have been entitled to return for the session of 1884-85. Subsequent to that session the records are more complete, hence the following table.

TABLE No. 8.

FISCAL YEARS ENDING OCTOBER 31.	RECEIVED.			DISCHARGED OR WITHDRAWN.						DIED, Included Under Discharges.		Enrolled Close of Year.		Present Close of Year.		Daily Average Attendance.					
	New Pupils.			Enrollment During Year. (Including New Pupils.)		Graduates.		Discharged.		Non- Attendance.		M.	F.	M.	F.	M.	F.	Total.			
	M.	F.	Total.	M.	F.	M.	F.	M.	F.	M.	F.										
1885.....	29	15	203	169	3	2	14	22	13	12	3	1	187	144	174	132	Not given.	Est.	300.0		
1886.....	35	31	207	165	3	3	10	9	13	19	2	1	194	154	181	135	Not given.	"	300.0		
1887.....	11	14	190	158	2	2	5	13	12	19	2	2	184	141	165	130	Not given.	"	300.0		
1888.....	20	13	193	153	2	3	17	6	6	14	1	1	174	144	168	130	Not given.	"	300.0		
1889.....	15	15	189	159	3	2	11	8	14	10	1	1	175	148	161	138	Not given.	"	300.0		
1890.....	26	21	192	163	6	7	13	11	13	10	2	2	173	145	160	135	No Division	"	294.5		
1891.....	15	20	180	162	7	11	18	6	17	16	1	1	155	144	141	127	"	"	281.1		
1892.....	23	19	169	154	4	4	12	11	6	16	2	1	154	136	147	120	"	"	265.0		
1893.....	17	15	166	140	5	5	5	2	11	11	1	1	154	133	143	122	"	"	261.1		
1894.....	27	14	176	143	4	4	2	0	10	12	1	1	170	138	160	126	"	"	269.0		
1895.....	31	22	196	153	12	3	8	6	9	14	16	2	176	144	167	135	"	"	293.0		
1896.....	33	29	205	168	6	9	8	8	14	16	2	2	191	151	177	135	"	"	300.5		
1897.....	32	18	206	158	10	2	9	6	9	9	13	2	187	150	178	137	"	"	302.0		
1898.....	32	17	213	156	3	6	2	1	20	16	1	1	208	149	188	133	"	"	308.4		
1899.....	26	22	222	164	0	0	14	10	14	15	1	2	206	154	184	139	186.6	135.1	312.8		
1900.....	21	14	222	162	9	5	7	9	19	15	1	1	197	154	178	139	180.8	128.5	309.3		
1901.....	23	33	218	166	6	6	15	6	19	15	1	1	192	157	172	146	177.5	135.5	313.0		
1902.....	21	20	209	165	6	2	11	6	20	11	1	1	197	161	178	150	169.1	138.2	307.3		
1903.....	24	19	203	171	3	5	3	5	19	10	1	2	204	168	185	158	169.4	145.5	314.9		
1904.....	28	18	215	174	8	0	10	9	16	19	1	2	191	169	175	150	175.7	147.6	323.4		
1905.....	18	19	209	178	9	0	10	9	16	19	2	1	188	169	172	153	169.2	144.8	314.0		
1906.....	21	23	203	178	7	6	8	3	16	16	1	1	175	154	140	134	164.1	151.6	315.7		
1907**.....	12	11	187	170	6	12	6	4	35	20	1	1	170	157	150	138	154.5	136.9	291.4		
1908**.....	15	16	179	162	5	5	2	4	3	20	1	1	166	157	146	143	155.8	139.3	295.2		
1909.....	19	17	181	162	3	10	2	2	20	14	1	1	168	160	149	143	143.0	141.3	284.3		
1910.....	20	25	175	172	3	2	4	1	8	20	1	1	168	169	160	149	143.0	141.3	284.3		
1911.....	27	21	188	173	8	6	7	3	19	14	1	1	173	164	154	150	156.0	140.7	296.7		
Totals.....	611	521	137	125	251	171	243	21	15
Averages.....	22.6	19.3	196.5	162.9	5.1	4.6	9.3	6.3	9.0	8.5	.78	.55	182.9	151.9	164.5	137.5	166.8†	140.4†	299.0

†For twelve years.

**Fiscal year ending September 30.

Concerning those listed under Non-Attendance it is to be stated that some of them return later in the year and some after an absence of a year or more. A few of them are graduated, some are discharged and others again drop out. The yearly figures are given for comparison but opposite "Totals" and "Averages" are given figures showing the actual non-attendance for the entire period.

TABLE No. 9.

OFFICERS AND EMPLOYEES.

POSITION.	Number.	Time of Service.	Rate Per Month.	Salary Per Month.	Additional Compensation.
Trustees	4	12 months	\$25 00	\$100 00	Traveling expenses
Officers	7	1- 9 months 6-12 months	65 00 \$33 33 to \$258 33	614 16	{5 with board. 1 with 3 meals. 1 nothing.
Teachers—Literary	25	9 months	61 11 to 133 33	2,371 58	{1 with 1 meal. 24 nothing.
Teachers—Industrial	4	1- 9 months 1-10 months 2-12 months	66 66 90 00 90 00	\$246 66	{1 with board. 2 with 1 meal. 1 nothing.
Normal Students	5	9 months	Nothing.	Nothing.	5 with board.
Attendants	12	9- 9 months 3-12 months	22 00 to 54 00 27 50 to 60 00	388 50	{11 with board. 1 with one meal.
Artisans	1	2- 9 months 8-12 months	52 50 to 62 50 25 00 to 70 00	465 33	{4 with board. 1 with 3 meals. 1 with 2 meals. 3 with 1 meal. 1 nothing.
Domestics	21	12- 9 months 9-12 months	15 00 to 16 00 17 50 to 40 00	400 50	{10 with board. 2 with 1 meal.
Totals	88			\$4,586 73	

*COURSE OF STUDY IN OUTLINE.

PRIMARY GRADES.

Grade 1—

Language—Past, present and future tenses, active voice, with auxiliaries be and have; positive, negative and interrogative; vocabulary, parts of speech and sentence models as prescribed. Arithmetic—Notation 1 to 31, with Arabic and number-words; addition and subtraction to 10, teaching plus and minus signs; mental and written. Penmanship—**Instruction** with pencil and crayon, followed by pen and ink exercises. Letter writing. Good morals and gentle manners. Object and observation lessons.

Grade 2—

Language—First grade verb forms and sentence models continued, with added auxiliaries; present progressive; present habitual; conjugation; vocabulary, parts of speech and sentence models as prescribed. Arithmetic—Notation 1 to 100, Arabic and number-words; Romans and ordinals to 12; addition and subtraction to 100; mental and written. Penmanship—Copy-book work, Nos. 1 and 2. Drawing—First principles, blackboard, slate and paper; drawing book, No. 1. Letter writing. Good morals and gentle manners. Object and observation lessons.

Grade 3—

Language—First and second grade forms and sentence models with auxiliaries continued; infinitive; imperative mode; conjugation; vocabulary, parts of speech and sentence models as prescribed; journal writing. Arithmetic—Notation 1 to 1,000; Arabic and number words, Romans and ordinals to 100 and higher; addition and subtraction; dollars and cents; measuring; mental and written. Geography—Introductory work by teacher; positions, cardinal points, locations, plans, etc. Penmanship—Copy-book work, Nos. 3 and 4. Drawing—Drawing books, Nos. 2 and 3. Letter writing. Good morals and gentle manners. Object and observation lessons.

Grade 4—

Language—Previous verb forms and sentence models continued; present perfect tense; passive voice; conjugation; vocabulary, parts of speech and sentence models as prescribed, introducing idioms; journal writing. Arithmetic—Numbers above 1,000, with Arabic and number words, Romans and ordinals to correspond; addition and subtraction, multiplication and division, with not more than two figures in multiplier and divisor, teaching multiplication and division signs; aliquot parts; dollars and cents; measuring; buying and selling; mental and written. Geography—Third grade work continued and enlarged, concerning institution, city, county and State, showing principal towns, rivers, lines of railway, highlands, lowlands, min-

*Elaborated in form for primary grades in "Course Limitations," wherein is detailed the monthly development and limitations in language, arithmetic and geography.

eral and agricultural products; map drawing. Penmanship—Copy-book work, Nos. 5 and 6. Drawing—Drawing books, Nos. 4 and 5. Letter writing. Good morals and gentle manners. Object and observation lessons.

**Grade 5—*

Language—Previous verb forms and sentence models continued; past perfect tense; present participle; systematic instruction in idioms; vocabulary, parts of speech and sentence models as prescribed; journal writing. Arithmetic—Practical problems in the four fundamental rules, introducing properties of numbers; weights and measures; United States currency. Geography—First lessons; general division and features of land and water, and form of earth; map drawing. Penmanship—Copy-book work, special selection. Drawing—Drawing books, Nos. 6 and 7. Letter writing. Good morals and gentle manners. Object and observation lessons.

INTERMEDIATE GRADES.

B Grade—

Language—General review of primary grade verb forms and sentence models; future perfect tense; potential and subjunctive modes; past and past perfect participles; systematic instruction in idioms continued; journal writing. Arithmetic—Cancellation; fractions and decimals begun; United States currency; practical problems in money; bills and accounts. Geography—Elementary mathematical, physical and political; map drawing. History—First and second terms, introductory work by teacher, concerning institution, city, county and State; third term, stories of American history. Drawing—Special selection. Good morals and gentle manners. Object and observation lessons.

A Grade—

Language—Grammar; idioms and general reading continued; compositions. Arithmetic—Fractions and decimals completed; denominate numbers and measurements; exercises in commercial forms. Geography—World's mathematical and physical; globe and map studies; map drawing. History—Elementary United States.

ACADEMIC GRADES.

Junior Grade—

Language—Grammar; general reading and idioms continued; compositions. Arithmetic—Percentage, practical problems in profit and loss, commission, insurance, taxes, duties, etc.; exercises in commercial forms. Geography—World's political; map drawing. History—Complete United States and stories of.

Middle Grade—

Language—Grammar and general reading; compositions. Arithmetic—Interest; discount; exchange; partnership; ratio and proportion. History—First and second terms, general history; third term, English; selections and stories of both. Physiology and anatomy—Elements of, and lectures, making use of anatomical models, skeletons, etc.

*The future perfect tense, the potential and subjunctive modes, except as introduced under auxiliaries, and the past and past perfect participles, are to be taken up in the intermediate grades

Senior Grade—

Language—Grammar and literature; composition. Arithmetic—Analysis; roots; mensuration; general review. Nature Philosophy—Lectures and experiments. Moral philosophy—Lectures. Civics—Outline in general, United States in particular. Current events.

*TEXT-BOOKS USED.

Grade 1—No books; lesson-papers.

Grade 2—No books; lesson-papers.

Grade 3—First Reader (Cyr); lesson-papers.

Grade 4—Stories for Language Study (Kellogg).

Arithmetic (Original Work by Teacher).

MS. Geography (Teacher).

Lesson-papers.

Grade 5—Stories of Great Americans (Eggleston).

Arithmetic (Original Work by Teacher).

First Lessons in Geography (Monteith).

Lesson-papers.

B Grade—First Lessons in Language. Part I (Tarbell).

Stories of American Life and Adventure (Eggleston).

Elementary Arithmetic (Walsh).

Elementary Geography (Frye).

MS. History (Teacher).

First Book of American History (Eggleston).

A Grade—First Lessons in Language. Part I (Tarbell).

Book of Tales (Edited by Swinton).

Complete Arithmetic (Walsh).

Complete Geography (Frye).

Elementary History of the United States (Quackenbos).

Junior Grade—First Lessons in Language. Part II (Tarbell).

Old Stories of the East (Baldwin).

Complete Arithmetic (Walsh).

Complete Geography (Frye).

History of the United States (Higginson).

Middle Grade—Lessons in Language. Part II (Tarbell).

Ten Great Events in History (Johonnot).

Complete Arithmetic (Walsh).

General History (Anderson).

English History (Higginson and Channing).

Physiology. "Our Bodies and How We Live" (Blaisdell).

Senior Grade—Lessons in Language. Part II (Tarbell).

Primer of English and American Literature (Clarke).

Shakesperean Primer (Institution edition).

Complete Arithmetic (Walsh).

Natural Philosophy (Cooley; lectures and experiments).

Moral Philosophy, lectures.

Civics (Townsend's Shorter Course).

* Various other text-books and supplementary readers for reference and general reading are made use of in the different classes.

RULES.

CONCERNING THE ADMISSION AND RETENTION OF PUPILS AND WHAT SHALL BE TAUGHT THEM.

1. This institution is open to all the deaf of the State free of charge, provided they are of suitable age and capacity, and are too deaf to be educated in the common schools.

2. Pupils will be considered of proper school age between the years of eight and twenty-one, but the admission of pupils between the years of seventeen and twenty-one will depend upon circumstances. No child who is idiotic or feeble-minded or who is afflicted with sore eyes, or with a contagious or offensive disease, or who is an invalid so confirmed as to prevent study, or who is in a badly crippled condition and unable to go up and down flights of steps, or who is unable to care for self in a general way, will be received as a pupil.

3. This institution is in no sense an asylum for the deaf, nor a place of refuge for those who can not talk—neither is it a prison, a reform-school, an almshouse, a children's home nor an hospital. It is strictly an educational institution—a school in its widest and best sense, and a part of the common school system of the State, wherein the deaf children of the State receive an education as a matter of right, not as a matter of charity.

4. Application for the admission of pupils must be made upon the regular blank form of the institution, which will be furnished the applicant by the superintendent. All questions on said form must be fully answered, and the requirement of certificates of a physician and of a justice of the peace on the back thereof (that the person seeking admission as a pupil is eligible physically and mentally and is a legal resident of the county named), must be complied with. (See Sec. 2999, R. S. 1901.)

5. No child shall be brought to the school as a pupil until the proper application has been filed with, and acted upon by, the superintendent, and due notice of admission sent by him to the applicant.

6. Those for whom applications have been made and favorably acted upon will be admitted as pupils on the following conditions: (a) They must be provided with clothing, and brought to the institution punctually at the time designated by the superintendent, unless detained at home by sickness. (b) They are to remain in school until the second Wednesday in June of each year. (c) No parent or guardian will be allowed to take a pupil out of school during the session without some very urgent reason. (d) Pupils will not be allowed to go home during the holidays, nor at Easter time, the annual session being a continuous one without a vacation.

7. The annual session of school usually begins on Wednesday of the full week preceding the first day of October and closes on the first Wednesday in June. Pupils must report promptly at the beginning of the session.

No pupil, unless under extraordinary circumstances, will be received at any time other than at the beginning of the annual session, because of the classes being graded and the work progressive from the first day.

8. The pupils will be sent home to spend the summer vacation on the day following the close of school in June.

9. The institution will provide for each pupil regularly admitted, boarding, lodging, washing, superintendence of conduct, manners and physical needs, instruction, school supplies, etc., but will not pay traveling expenses of pupils in coming to or going from the institution, nor supply them with clothing, except under certain conditions mentioned in Paragraph 12.

10. All traveling expenses of pupils to and from the institution must be defrayed by the parents, guardians or friends. They are also required to furnish annually to each pupil sent by them a sufficient quantity of suitable clothing to last until the close of the term. (See Sec. 3000, R. S. 1901.) A good, stout trunk must also be supplied. The name of the pupil must be written in indelible ink upon all articles of clothing, as they are liable to be lost when not so marked. While close and constant attention will be given to the preservation of pupils' clothing, the institution disclaims any responsibility for worn-out, lost or misplaced articles.

11. Pupils must deposit with the superintendent, when admitted each year, not less than \$5.00 to defray incidental expenses (shoes, repairs, etc.) during the year; and, if a boy, the cost of the uniform suits which are worn. If any part of said deposit should remain unexpended at the close of the annual session, it will be returned or carried forward to the next session, as may be desired.

12. When it is established that a pupil is in indigent circumstances, or when the parents, guardians or friends are either unable or neglect to furnish the necessary clothing, or to pay the necessary traveling expenses (going from the institution), then the same will be provided for by the superintendent in pursuance of the following legislative enactment:

Sec. 3001 R. S. 1901. In all cases where suitable clothing and means for defraying traveling expenses are not otherwise supplied to the pupils, the same shall be provided by the superintendent, who shall make out and file with the Treasurer of State accounts therefor, separate in each case, against the respective counties from which the pupils are sent, in an amount not exceeding forty dollars per annum for every such pupil; which accounts shall be severally signed by the superintendent and attested by the seal of the institution under his charge; and the Treasurer of State shall charge each account, thus certified, to the county from which the pupil named therein was sent, and credit the amount to the current expense fund of the proper institution.

Sec. 3002 R. S. 1901. The Treasurer of State shall forward each account so filed with him to the treasurer of the proper county, who shall cause it to be paid out of the county treasury to the Treasurer of State; and such county shall, in the name of the county, and by suit, if necessary, collect the amount of such account from the parents or estate of such pupils, as the case may be, where there is ability to pay: Provided, That at least three hundred dollars of the property shall be exempt from the payment of such account.

13. The regular course of study in the institution is so arranged as to cover ten years, and is divided into primary, intermediate and academic courses. The primary and intermediate courses embrace spelling, reading, writing, drawing, arithmetic, geography, history and grammar. The two courses are divided into seven grades, five primary and two intermediate, and the time required to complete them is seven years. The academic course comprises a three years' course of advanced primary and intermediate work, and of other studies. In addition to the above, a kindergarten department, with two years' instruction, is provided for the younger and selected pupils. The regular kindergarten work for hearing-speaking children is adapted to the needs of the deaf, the second year merging into primary work. The number of years a pupil may remain in school is regulated by a time schedule, and depends upon the mental ability, progress and conduct of the pupil himself. He may remain certainly five years, subject to conditions named in Paragraph 14, and as much longer, up to thirteen years, as his conduct and promotions from year to year may warrant.

14. The superintendent shall have the power at any time to discharge a pupil from the institution for inability to receive an education, for non-progression or non-attendance, for violation of the rules of the institution, or where his retention would prove a detriment to others or to the school. He may also, when he thinks the facts warrant it, extend the period of instruction in individual cases.

15. It is the intention of the trustees to render the pupils self-supporting in greater or less degree after leaving the institution, by requiring them to become proficient in some useful trade or occupation, or in the underlying principles of several trades, while in attendance at the institution. In accordance with this design, all pupils will be required to labor a portion of each day, the girls performing the lighter kinds of housework, cooking, the various kinds of needlework, and dressmaking and millinery in all of their branches; the boys at various trades—typesetting, presswork, carpentry, cabinetmaking, woodturning, painting, glazing, cutting, fitting, making and the repair of shoes, harnessmaking, tinwork, baking, cooking, floriculture, barbering and farming. Pupils will be assigned to one or more of these occupations, or others, as the superintendent may deem them most fitted for. Drawing, freehand and mechanical, will be taught to all pupils during the first five years, and in the four higher grades all girls and selected boys will be taught sketching, designing, modeling, wood carving and painting in oil, water colors and pastel, etc.

16. In the education of the deaf there are two methods and one system of instruction generally recognized.

The manual or French method (using sign-language, manual alphabet and writing), of which there is a variation that may be called the "Alphabetic," wherein only the manual alphabet and writing are used.

The oral or German method (using speech and speech-reading and writing), of which there is a variation that may be called the "Auricular," wherein special attention is given to the development and training of the hearing, when possessed in any degree, by means of which instruction is partially given.

The Combined system (a so-called combination of the two methods).

Some of the leading German instructors, after long years of experience, favor the French method; some of the French schools have adopted the German method, but no country, other than America, has generally adopted the Combined system, which, in justice, should be called the American system.

The general system of instruction used in this institution is known as the American (Combined) system, under which all known methods and their variations may be used for the attainment of an object common to all. Speech and speech-reading are regarded as very important, but mental development, and the acquisition of language and general knowledge, are regarded as still more important. It is believed that with a great many of the new pupils now entering, the necessary mental development and acquisition of language and general knowledge may be as well attained by the Oral method, which results in speech and speech-reading, as by the Manual method, which precludes this much-to-be-desired result. So far as circumstances permit, such method (or methods) is chosen for each pupil as seems best adapted to his needs and capacity after thorough trial. In short, the rule will be: *Any method for good results—all methods, and wedded to none.*

17. The institution is nonsectarian, but thorough moral and religious instruction will be given, especially on the Sabbath, the nature of it being general, and such as is accepted by all churches and creeds.

Sec. 3070 R. S. 1901. No sectarian tenets of religion shall be taught in the institution to any pupil thereof.

18. The parents and friends of the pupils may visit them as often as they wish and whenever they deem it proper, but they should be careful not to abuse this privilege to the harm of the pupil, who must be withdrawn from schoolroom or shop for the purpose. Parents and friends, or those bringing pupils to or taking them away from the institution, can not be furnished meals or lodging.

19. Being Sec. 3004 R. S. 1901. Whenever it shall be deemed necessary by the proper officers of the institution, in accordance with the by-laws and regulations, to have any pupil removed, either temporarily or on account of ill health, or the vacation of the school, or permanently on account of having completed his course of instruction, or been found disqualified from any cause for a longer continuance in the school, the parents or guardians of such pupil, if he have any, shall promptly remove him upon the requirement of said officers; and, in case he shall not be thus provided for, it shall be the duty of the superintendent of the institution to cause him to be removed and delivered to the trustee of the township where he resided before coming to the institution; and the expense of such removal shall be refunded in the same manner as provided in Sections 3001 and 3002; and the county treasurer shall charge the same to the proper township and collect it in the manner as provided in aforesaid sections.

20. All business letters or letters of inquiry in regard to pupils or their concerns, or in regard to new pupils whom it may be designed to place in the institution, must be addressed to the superintendent, and not to subordinates (officers, teachers, attendants or employes); otherwise no attention will be paid to such letters.

ROSTER OF PUPILS.

IN ATTENDANCE DURING THE FISCAL YEAR ENDING
SEPTEMBER, 30, 1911.

<i>Name.</i>	<i>Year Admitted.</i>	<i>Postoffice.</i>	<i>County.</i>
Addison, James W.....	1906	Seaford.....	White.
Allen, Robert W.....	1905	Fredericksburg.....	Washington.
Allman, Elmer S.....	1902	Monticello.....	White.
Ambuhl, Dora R.....	1903	Indianapolis.....	Marion.
Amos, Carrie.....	1903	Sturgis (Michigan) ..	Lagrange.
Anderson, Edward J.....	1908	Indianapolis.....	Marion.
Anderson, Lorel G.....	1906	Bryant.....	Jay.
Avis, Harry.....	1909	Indianapolis.....	Marion.
Barnett, Loretta V.....	1905	Kokomo.....	Howard.
Bartlett, Hildred M.....	1910	Dunkirk.....	Jay.
Bartlett, Ralph M.....	1906	Dunkirk.....	Jay.
Beard, Kenneth A.....	1910	West Terre Haute...	Vigo.
Bechtel, Mary L.....	1907	Marion.....	Grant.
Bell, Mabel C.....	1910	Decatur.....	Adams.
Bennett, Thomas D.....	1908	Richmond.....	Wayne.
Bettag, Paul.....	1901	Jasper.....	Dubois.
Bettag, Justina.....	1906	Jasper.....	Dubois.
Bickel, Catherine D.....	1907	Floyd Knobs.....	Floyd.
Bickel, Irvin H.....	1908	Floyd Knobs.....	Floyd.
Bickel, Lorena C.....	1906	Floyd Knobs.....	Floyd.
Billings, Bertie.....	1906	Columbus.....	Bartholomew.
Black, Henry C.....	1901	Spencer.....	Owen.
Blackitor, Frank.....	1903	Ayrshire.....	Pike.
Blose, George W.....	1898	Andrews.....	Huntington.
Boone, Walter.....	1905	Emison.....	Knox.
Bosh, Phoebe G.....	1901	Twelve Mile.....	Cass.
Boyer, Bessie A.....	1910	New Castle.....	Henry.
Bragg, Minnie.....	1905	Noblesville.....	Hamilton.
Bridges, Myra M.....	1908	Franklin.....	Johnson.
Brindley, Leo V.....	1909	Indianapolis.....	Marion.
Brinkley, Norma A.....	1908	Evansville.....	Vanderburgh.
Buczynski, Boleslaw V.....	1909	East Chicago.....	Lake.
Burford, Elmer J.....	1898	Indianapolis.....	Marion.
Burford, George T.....	1898	Indianapolis.....	Marion.
Carr, Edwin.....	1905	Mitchell.....	Lawrence.

<i>Name.</i>	<i>Year Admitted.</i>	<i>Postoffice.</i>	<i>County.</i>
Catterlin, Julia M.....	1903	Marion.....	Grant.
Chestnut, Bertha H.....	1904	Odon.....	Daviess.
Chrustowski, Henry.....	1907	East Chicago.....	Lake.
Clampitt, Charles D.....	1903	Frankfort.....	Clinton.
Clampitt, Chester L.....	1906	Frankfort.....	Clinton.
Clampitt, Harry J.....	1900	Frankfort.....	Clinton.
Clark, Harold L.....	1900	Rensselaer.....	Jasper.
Clark, Ida G.....	1898	Aurora.....	Dearborn.
Clausen, Carl.....	1905	Elkhart.....	Elkhart.
Clipp, Vance S.....	1904	Greenville.....	Floyd.
Clouser, Amos.....	1900	Windfall.....	Tipton.
Coate, Martha E.....	1910	Wabash.....	Wabash.
Coats, Helen.....	1910	Indianapolis.....	Marion.
Cobb, Harold M.....	1907	Indianapolis.....	Marion.
Coeur, August.....	1910	Kokomo.....	Howard
Coeur, Raymond.....	1910	Kokomo.....	Howard.
Colebaugh, Hazel H.....	1910	Washington.....	Daviess.
Comer, Hazel.....	1906	Huntington.....	Huntington.
Coppola, Viola.....	1909	Centerville.....	Wayne.
Cornelius, Damon.....	1905	Bloomington.....	Monroe.
Coughenour, Margaret.....	1905	Logansport.....	Cass.
Coval, Fred.....	1906	Indianapolis.....	Marion.
Crabtree, Vernie A.....	1910	Poseyville.....	Gibson.
Cummings, Harry E.....	1903	Alexandria.....	Madison.
Cunningham, Jeannette M....	1904	Indianapolis.....	Marion.
Dague, Mabel.....	1904	Denver.....	Miami.
Dark, Myrtle M.....	1910	Boonville.....	Warrick.
Davis, Avery C.....	1910	Columbus.....	Bartholomew.
Davis, Ralph P.....	1910	Indianapolis.....	Marion.
Davis, Stanley M.....	1897	Pimento.....	Vigo.
Dazey, Lee L.....	1897	Indianapolis.....	Marion.
Deems, Kenneth R.....	1910	Kendallville.....	Noble.
Delise, Peter.....	1903	Vincennes.....	Knox.
Denny, John W.....	1903	Wabash.....	Wabash.
Dixon, James N.....	1907	Switz City.....	Greene.
Dock, Walter.....	1910	Evansville.....	Vanderburgh.
Doudt, Ethel R.....	1901	Angola.....	Steuben.
Dranginus, Eva.....	1905	Staunton.....	Clay.
Dranginus, John.....	1900	Staunton.....	Clay.
Dryer, Martin.....	1902	Lafayette.....	Tiptecanoe.

<i>Name.</i>	<i>Year Admitted.</i>	<i>Postoffice.</i>	<i>County.</i>
Dudley, Audrey I.....	1910	Kokomo.....	Howard.
Eckles, Earl.....	1910	Kendallville.....	Noble.
Elder, Leo U.....	1902	Indianapolis.....	Marion.
Elliott, Phavilla D.....	1910	Hazleton.....	Gibson.
Engle, Bertie L.....	1909	Staunton.....	Clay.
Estell, Addie M.....	1900	Morristown.....	Shelby.
Evans, Lennie D.....	1905	Kirkpatrick.....	Montgomery.
Farmer, William.....	1903	Jeffersonville.....	Clark.
Featheringill, Eleanor R.....	1904	New Albany.....	Floyd.
Ferguson, Minnie.....	1907	New Albany.....	Floyd.
Fingerly, Jessie O.....	1903	Indianapolis.....	Marion.
Floor, Dale D.....	1909	Silver Lake.....	Wabash.
Ford, Marie S.....	1906	Thorntown.....	Boone.
Frakes, Charles E.....	1904	Terre Haute.....	Vigo.
Frazer, Frederick L.....	1907	Richmond.....	Wayne.
French, Nora M.....	1904	Aurora.....	Dearborn.
Fremont, Helen N.....	1903	Terre Haute.....	Vigo.
Fry, Melva G.....	1909	Frankfort.....	Clinton.
Fry, Alta J.....	1909	Frankfort.....	Clinton.
Games, Myrtle M.....	1908	North Salem.....	Hendricks.
Gardner, Lee.....	1906	Russellville.....	Putnam.
Gardner, Roy.....	1903	Balbec.....	Jay.
Gerichs, Emory.....	1904	Vincennes.....	Knox.
Gift, Nelson M.....	1910	Wabash.....	Wabash.
Gilpin, Nellie C.....	1910	Hobart.....	Lake.
Ginn, Norman L.....	1908	Hammond.....	Lake.
Golding, Arthur H.....	1908	Hammond.....	Lake.
Gorzynski, Edward.....	1910	Gary.....	Lake.
Gray, George M.....	1906	Lebanon.....	Boone.
Gregori, Emma.....	1910	Burnett.....	Vigo.
Greiner, Edith A.....	1902	Greencastle.....	Putnam.
Griffin, Wilhelmina D.....	1909	Angola.....	Steuben.
Grimwood, Mary N.....	1909	Mt. Vernon.....	Posey.
Grise, Luella F.....	1898	Bremen.....	Marshall.
Groves, Roberta M.....	1906	Anderson.....	Madison.
Hahn, Maggie N.....	1907	Cypress.....	Vanderburgh.
Hampton, Annice L.....	1905	Greencastle.....	Putnam.
Hampton, Leona V.....	1908	Frankfort.....	Clinton.
Hannel, Robert T.....	1899	DePauw.....	Harrison.
Harbison, Charles W.....	1904	Petersburg.....	Pike.

<i>Name.</i>	<i>Year Admitted.</i>	<i>Postoffice.</i>	<i>County.</i>
Harding, Robert.....	1907	Kokomo.....	Howard.
Harrison, Blanche.....	1903	Martinsville.....	Morgan.
Hargis, Roscoe F.....	1900	Edinburg.....	Bartholomew.
Harlow, Edith M.....	1905	French Lick.....	Orange.
Harry, Elma B.....	1910	Boonville.....	Warrick.
Hedrick, Gladys Z.....	1910	Bedford.....	Lawrence.
Hennen, Mary H.....	1910	Indianapolis.....	Marion.
Henson, Flois.....	1904	Paoli.....	Orange.
Herran, Donald.....	1905	Huntington.....	Huntington.
Hesh, Elmer E.....	1902	Wakarusa.....	Elkhart.
Herzberg, Flora.....	1910	Indianapolis.....	Marion.
Hinkley, Earl.....	1899	Mt. Vernon.....	Posey.
Hinton, Earl J.....	1900	Greencastle.....	Putnam.
Hitchens, Mary B.....	1904	Royerton.....	Delaware.
Hogle, Roy H.....	1901	Marion.....	Grant.
Holler, Maggie S.....	1901	Nappanee.....	Elkhart.
Horwitz, Nathaniel.....	1907	Lafayette.....	Tiptecanoe.
Houchins, James L.....	1899	Chandler.....	Warrick.
Hough, Ralph V.....	1908	Waterloo.....	Dekalb.
House, Hazel R.....	1909	Monroeville.....	Allen.
Huber, Waldo A.....	1910	Vernon.....	Jennings.
Hughes, Narvel W.....	1899	Columbus.....	Bartholomew.
Hummel, Milton F.....	1898	Bremen.....	Marshall.
Hunt, Mary M.....	1907	Spencer.....	Owen.
Hunter, Louise.....	1900	Indianapolis.....	Marion.
Huron, Leroy B. F.....	1904	Plainfield.....	Hendricks.
Huston, Everette E.....	1902	Markle.....	Huntington.
Hutchings, Mary E.....	1900	Marysville.....	Clark.
Jackson, Lawrence O.....	1910	Montpelier.....	Blackford.
Jasch, John.....	1909	Gary.....	Lake.
Jeffries, Mary L.....	1908	Terre Haute.....	Vigo.
Jones, Agnes E.....	1900	Albany.....	Delaware.
Jones, Dawson W.....	1904	Howell.....	Vanderburgh.
Jones, Martha K.....	1903	Howell.....	Vanderburgh.
Judge, Mary C.....	1909	St. Croix.....	Perry.
Jurczik, Ben.....	1909	Michigan City.....	Laporte.
Kaiser, Elsie.....	1902	Hammond.....	Lake.
Keene, William A.....	1902	Wheatfield.....	Jasper.
Ketner, Arthur L.....	1900	Indianapolis.....	Marion.
Ketner, Iva P.....	1902	Indianapolis.....	Marion.

<i>Name.</i>	<i>Year Admitted.</i>	<i>Postoffice.</i>	<i>County.</i>
King, Wilbur R.	1906	Jeffersonville.....	Clark.
Kintz, Joseph C.	1910	Ft. Wayne.....	Allen.
Kirkey, Anna M.	1901	Decker.....	Knox.
Kolb, Arley E.	1899	Zionsville.....	Boone.
Kuehn, Leo H.	1910	Kendallville.....	Noble.
Laffoon, William R.	1904	Donavan (Illinois) ..	Newton.
Landis, Mary E.	1904	Monroe.....	Jay.
Landis, Raymond.....	1902	Monroe.....	Jay.
Lang, Leon R.	1908	Floyd Knobs.....	Floyd.
Langebrake, Frieda W.	1906	Howell.....	Vanderburgh.
Lauber, Mildred H.	1905	South Bend.....	St. Joseph.
Lawless, Robert H.	1903	New Harmony.....	Posey.
Lester, Ralph.....	1901	Lesterville.....	Washington.
LeMar, Agnes L.	1910	Peru.....	Miami.
Link, Nellie.....	1908	Tunnelton.....	Lawrence.
Locke, Grace V.	1900	Richmond.....	Wayne.
Loftus, Leo.....	1905	Indianapolis.....	Marion.
Long, Charles B.	1908	Delphi.....	Carroll.
Long, Myrtle M.	1906	Wawaka.....	Noble.
Long, William C.	1907	Delphi.....	Carroll.
Lyon, Luther F.	1909	Bowling Green.....	Clay.
Lyster, Pearl.....	1899	Indianapolis.....	Marion.
Lyster, Thomas J.	1903	Indianapolis.....	Marion.
Malatin, George J.	1907	Hammond.....	Lake.
Mansfield, Mary M.	1902	Eaton.....	Delaware.
Martin, Clarence R.	1910	Lena.....	Parke.
Masset, Joseph R.	1909	Logan.....	Dearborn.
Meadows, Robert L.	1909	Bedford.....	Lawrence.
Mettler, Maze L.	1901	Columbia City.....	Whitley.
Migatz, Abraham.....	1904	Whiting.....	Lake.
Miles, Etta M.	1910	Boonville.....	Warrick.
Miles, Marjorie.....	1910	Indianapolis.....	Marion.
Milhon, Eva P.	1906	Stilesville.....	Marion.
Miller, Albert E.	1904	Woodburn.....	Allen.
Miller, Anna.....	1906	Middlebury.....	Elkhart.
Miller, Laura M.	1906	Middlebury.....	Elkhart.
Miller, Melvin.....	1907	Middlebury.....	Elkhart.
Miller, Ruth M.	1909	Middlebury.....	Elkhart.
Miller, Edna P.	1908	Middlebury.....	Elkhart.
Miller, Eva P.	1907	Kokomo.....	Howard.

<i>Name.</i>	<i>Year Admitted.</i>	<i>Postoffice.</i>	<i>County.</i>
Miller, Clevie C.....	1903	Little's	Pike.
Miller, Clarence E.....	1897	Little's	Pike.
Misner, Essie M.....	1908	West Terre Haute...	Vigo.
Mobley, Bertrand.....	1905	Rushville.....	Rush.
Morlock, Arthur G.....	1906	Mt. Vernon.....	Posey.
Murphy, Lillian E.....	1897	Muncie.....	Delaware.
Myers, John C.....	1901	Plymouth.....	Marshall.
Myers, Dessie B.....	1901	Plymouth.....	Marshall.
McBride, Grace E.....	1902	Richmond.....	Wayne.
McCullum, Virgie I.....	1903	Locust Point.....	Harrison.
McFarland, Leila E.....	1909	North Manchester..	Wabash.
McGinnis, Clifford.....	1909	Washington.....	Daviess.
McHenry, Cleon.....	1908	Gosport.....	Owen.
McKinney, William H.....	1903	Lawrenceburg.....	Dearborn.
McKinney, Eldora.....	1908	Lawrenceburg.....	Dearborn.
McKinney, Helen T.....	1908	Lawrenceburg.....	Dearborn.
McKissic, Chester E.....	1910	Geneva.....	Adams.
Neiderberger, Ellen.....	1903	Muncie.....	Delaware.
Niece, Carrie.....	1904	Edwards.....	Vigo.
Niehaus, Bernard J.....	1910	Vincennes.....	Knox.
Okes, Harold.....	1907	Terre Haute.....	Vigo.
Oliver, Ethel L.....	1903	Van Buren.....	Grant.
Ort, Margarete.....	1905	Mishawaka.....	St. Joseph.
Osborn, Lonney C.....	1903	Rockport.....	Spencer.
Parker, Erma L.....	1909	Indianapolis.....	Marion.
Parker, Goldie E.....	1903	Buck Creek.....	Tippecanoe.
Pattengale, Ora A.....	1904	Lafayette.....	Tippecanoe.
Patterson, C. Marsh.....	1905	Muncie.....	Delaware.
Peugh, Elmer G.....	1910	Little York.....	Washington.
Pivarnyik, Michael T.....	1909	Whiting.....	Lake.
Poinsett, Alice.....	1910	Ft. Wayne.....	Allen.
Porter, Garvey J.....	1905	Vevay.....	Switzerland.
Potter, Commodore.....	1906	Madison.....	Jefferson.
Powell, Albert W.....	1903	South Bend.....	St. Joseph.
Powell, Fred M.....	1900	South Bend.....	St. Joseph.
Pretz, Martin.....	1903	Evansville.....	Vanderburgh.
Purdy, Alvin L.....	1901	Morocco.....	Newton.
Reinke, Carlon.....	1906	Michigan City.....	Laporte.
Renicker, Clara M.....	1902	Ockley.....	Carroll.
Rhoades, Effie.....	1900	Algiers.....	Pike.

<i>Name.</i>	<i>Year Admitted.</i>	<i>Postoffice.</i>	<i>County.</i>
Rhude, Vern.....	1910	Muncie.....	Delaware.
Riall, Aurelius O.....	1907	Muncie.....	Delaware.
Rice, Ruth C.....	1908	Fowler.....	Benton.
Riggs, Harry.....	1907	Aurora.....	Dearborn.
Riley, Leonora.....	1901	Indianapolis.....	Marion.
Riley, Nina E.....	1902	Indianapolis.....	Marion.
Roach, Nina G.....	1910	Indianapolis.....	Marion.
Roberts, Alethea.....	1904	Edinburg.....	Johnson.
Roberts, Charles M.....	1909	Indianapolis.....	Marion.
Roeder, Osa E.....	1906	Dugger.....	Sullivan.
Rollings, Claude E.....	1900	Reelsville.....	Putnam.
Rollings, Joseph L.....	1904	Reelsville.....	Putnam.
Ruatto, Mary O.....	1910	Clinton.....	Vermillion.
Rue, Clarice L.....	1907	Logansport.....	Cass.
Runyon, Dewey L.....	1907	Greenwood.....	Johnson.
Rupkey, Goldie F.....	1902	New Palestine.....	Hancock.
Saine, Andrew J.....	1906	North Judson.....	Starke.
Saine, Mary C.....	1899	North Judson.....	Starke.
Sanders, Ada M.....	1901	Indianapolis.....	Marion.
Satterfield, Grace B.....	1900	Muncie.....	Delaware.
Schmidt, Carl F.....	1901	Osgood.....	Ripley.
Sawicki, Camilla M.....	1906	South Bend.....	St. Joseph.
Shadrick, Mary A.....	1901	Madison.....	Jefferson.
Shaffer, Fred L.....	1901	Bluffton.....	Wells.
Shank, Edgar D.....	1901	Hamlet.....	Starke.
Shields, Lola M.....	1905	Indianapolis.....	Marion.
Sheely, Tillman.....	1904	Indianapolis.....	Marion.
Shelby, Mary B.....	1901	Greenfield.....	Hancock.
Shoptaugh, Earl J.....	1904	Terre Haute.....	Vigo.
Smith, Nina M.....	1907	Kokomo.....	Howard.
Southers, Roscoe T.....	1908	Bedford.....	Lawrence.
Spencer, May L.....	1901	Indianapolis.....	Marion.
Speer, Fred M.....	1904	Lafayette.....	Tippecanoe.
Stone, Lillian J.....	1906	Connersville.....	Fayette.
Stout, Mabel I.....	1906	Bloomington.....	Monroe.
Stouder, Edna R.....	1901	Nappanee.....	Elkhart.
Sullivan, Darwin A.....	1906	Hazelon.....	Gibson.
Sumner, Waneta H.....	1909	Parker.....	Randolph.
Sutton, Lola P.....	1901	Iuka.....	Orange.
Sutherland, Albert.....	1899	Ashboro.....	Clay.

<i>Name.</i>	<i>Year Admitted.</i>	<i>Postoffice.</i>	<i>County.</i>
Sutherlin, Marion.....	1908	Ashboro.....	Clay.
Taylor, Helen M.....	1908	French Lick.....	Orange.
Travis, Emma F.....	1910	Indianapolis.....	Marion.
Trostel, Seward E.....	1909	Marion.....	Grant.
Trulock, Emma E.....	1909	Shelburn.....	Sullivan.
Tutorow, Florence L.....	1903	Wilkinson.....	Hancock.
Vorhees, John W.....	1901	Muncie.....	Delaware.
von Hippel, Herman K. E.....	1906	Newburg.....	Vanderburgh.
Wallace, Clara P.....	1908	Fowler.....	Benton.
Wallace, Ola.....	1907	Jasonville.....	Greene.
Walls, Mary B.....	1909	Indianapolis.....	Marion.
Ward, Ira.....	1910	Attica.....	Fountain.
Wardell, John B.....	1903	Farmersburg.....	Sullivan.
Wardell, Kate L.....	1907	Farmersburg.....	Sullivan.
Warfield, Lawrence B.....	1910	Colburn.....	Tippecanoe.
Warfield, Lottie E.....	1906	Homer.....	Rush.
Watkins, Warren M.....	1905	Linton.....	Greene.
Weare, Callie M.....	1905	Edinburg.....	Johnson.
Weaver, Helen M.....	1909	West LaFayette.....	Tippecanoe.
Welton, Raymond C.....	1909	Petersburg.....	Pike.
Werntz, Emma E.....	1898	Warsaw.....	Kosciusko.
Wesling, Carl H.....	1904	Indianapolis.....	Marion.
West, Callie M.....	1904	Kokomo.....	Howard.
White, Albert.....	1908	South Bend.....	St. Joseph.
White, Etta.....	1905	Hartsville.....	Bartholomew.
White, Lucy.....	1904	Ft. Branch.....	Gibson.
White, Samuel E.....	1906	Vincennes.....	Knox.
Whitaker, Madeline L.....	1905	Indianapolis.....	Marion.
Whitney, Mary R.....	1910	New Albany.....	Floyd.
Whittenberger, Everette E.....	1910	Silver Lake.....	Kosciusko.
Wickersham, Clara V.....	1905	Wabash.....	Wabash.
Wickersham, Paul.....	1908	Wabash.....	Wabash.
Wiggers, William J.....	1904	Inglefield.....	Vanderburgh.
Williams, Orville.....	1909	Kappa.....	Howard.
Williams, Ross.....	1908	West Newton.....	Marion.
Wright, Arista.....	1899	Linton.....	Greene.
Yoder, Orpha B.....	1898	Wakarusa.....	Elkhart.

Total, 312 pupils—Boys, 163; Girls, 149.

NEW PUPILS ADMITTED IN OCTOBER, 1911.

(Not listed in preceding Roster for Fiscal Year.)

<i>Name.</i>	<i>Post Office.</i>	<i>County.</i>
Atkins, Helen.....	Jasonville.....	Greene.
Bates, Charles Russell.....	Shirley.....	Hancock.
Brady, Samuel Walter.....	Muncie.....	Delaware.
Browne, Ralph Waldo.....	Anderson.....	Madison.
Bunce, Timothy.....	Indianapolis.....	Marion.
Campbell, Leslie Leroy.....	Linden.....	Montgomery.
Clark, Dorothy Gladys.....	Burlington.....	Carroll.
Clark, Manford Leroy.....	Burlington.....	Carroll.
Conner, Daniel Kimmel.....	Indiana Harbor.....	Lake.
Cooper, Anna Marie.....	Wilkinson.....	Hancock.
Dorsam, Kate Marie.....	Vincennes.....	Knox.
Dorsam, Nora Grace.....	Vincennes.....	Knox.
Giffon, Harold Vernon.....	Marion.....	Grant.
Goss, Charles Ray.....	Mishawaka.....	St. Joseph.
Harlow, Clarence Lex.....	Sullivan.....	Sullivan.
Heavenridge, Gladys Christena...	Muncie.....	Delaware.
King, Robert Clayton.....	Veedersburg.....	Fountain.
Kirchenbauer, Karl Gottlieb.....	Anderson.....	Madison.
Kitson, Beulah Marie.....	Syracuse.....	Kosciusko.
Lloyd, Elmer Edgar.....	Indianapolis.....	Marion.
Lyster, Ruby M.....	Indianapolis.....	Marion.
Marshall, Rolland.....	Anderson.....	Madison.
Martin, Mabel Lucile.....	LaGrange.....	LaGrange.
Miller, Lois Evelyn.....	Marion.....	Grant.
Morris, Gertrude Marie.....	Terre Haute.....	Vigo.
McCormick, Arena Neal.....	Terre Haute.....	Vigo.
McDonnall, Mildred.....	Sullivan.....	Sullivan.
McKay, Eva.....	Moorefield.....	Jefferson.
Newman, Elva Margaret.....	Napoleon.....	Ripley.
Patterson, Elizabeth Marie.....	Indianapolis.....	Marion.
Powless, Clyde.....	Anderson.....	Madison.
Ratliff, Thelma Ardath.....	Bloomington.....	Monroe.
Rushton, George Marker.....	Clayton.....	Hendricks.
Shores, Oliver Clay.....	Indianapolis.....	Marion.
Skaggs, Van Brown.....	Indianapolis.....	Marion.

<i>Name.</i>	<i>Post Office.</i>	<i>County.</i>
Schaible, Isabella Della.....	Lafayette.....	Tippecanoe.
Sipe, Ramon.....	Winchester.....	Randolph.
Stewart, Nina Ziporah.....	Edwards.....	Vigo.
Thompson, Elijah Horton Chandler	Indianapolis.....	Marion.
Trowbridge, Martha Pearl.....	Lebanon.....	Boone.
Venard, Charles Lawrence.....	Zionsville.....	Boone.
Walker, Clinton G. S.....	Corydon.....	Harrison.
Wardell, Donald Meredith.....	Farmersburg.....	Sullivan.
Warth, Russell.....	Rushville.....	Rush.
Wilson, Marie Elizabeth.....	Washington.....	Daviess.

Total, 45 pupils—Boys, 24; Girls, 21.

ENROLLMENT OF PUPILS BY COUNTIES.

OCTOBER 1, 1910, TO OCTOBER 31, 1911.

	<i>Received.</i>		<i>Discharged.</i>		<i>Remaining.</i>		<i>Not Returned</i> <i>October 31.</i>	
	<i>Boys.</i>	<i>Girls.</i>	<i>Boys.</i>	<i>Girls.</i>	<i>Boys.</i>	<i>Girls.</i>	<i>Boys.</i>	<i>Girls.</i>
Adams	1	1	1	1
Allen	2	2	2	2
Bartholomew ...	4	1	1	..	3	1	1	..
Benton	2	2
Blackford	1	1	..	1	..
Boone	3	2	3	2
Carroll	3	2	3	2	1	..
Cass	3	3
Clark	2	1	2	1
Clay	4	1	4	1
Clinton	4	2	4	2
Daviess	1	3	1	3	..	1
Dearborn	3	4	..	1	3	3
Dekalb	1	1
Delaware	5	8	..	2	5	6	1	..
Dubois	1	1	1	1	..	1
Elkhart	3	7	..	1	3	6
Fayette	1	1
Floyd	3	5	3	5
Fountain	2	2
Fulton	1	1	1	..
Gibson	2	3	2	3
Grant	3	4	3	4	..	1
Greene	3	2	1	..	2	2
Hamilton	1	1
Hancock	1	4	1	4
Harrison	2	1	2	1
Hendricks	2	1	1	..	1	1
Henry	1	1
Howard	5	5	5	5	1	..

	<i>Received.</i>		<i>Discharged.</i>		<i>Remaining.</i>		<i>Not Returned</i>	
	<i>Boys.</i>	<i>Girls.</i>	<i>Boys.</i>	<i>Girls.</i>	<i>Boys.</i>	<i>Girls.</i>	<i>October 31.</i>	<i>Boys. Girls.</i>
Huntington	3	1	1	..	2	1
Jasper	2	2
Jay	3	1	3	1
Jefferson	1	2	1	2
Jennings	1	1
Johnson	1	3	1	3
Knox	5	3	5	3	1	..
Kosciusko	1	2	1	2
Lagrange	2	2
Lake	10	2	..	1	10	1	1	..
Laporte	2	2
Lawrence	3	2	3	2
Madison	5	1	5	1	1	..
Marion	22	23	3	2	19	21	2	4
Marshall	2	2	..	1	2	1	1	..
Miami	2	2
Monroe	2	3	2	3
Montgomery	2	2
Morgan	2	2
Newton	2	2
Noble	3	1	3	1	2	..
Orange	4	4	..	1
Owen	2	1	2	1
Parke	1	..	1
Perry	1	1
Pike	3	2	3	2	3	..
Posey	4	1	1	..	3	1	1	..
Putnam	4	2	1	1	3	1
Randolph	1	1	1	1
Ripley	1	1	1	1
Rush	2	1	2	1	..	1
Shelby	1	1
Spencer	1	1
Starke	2	1	2	1	..	1
Steuben	2	2	..	1
St. Joseph.....	4	3	4	3	..	1
Sullivan	4	3	1	..	3	3
Switzerland	1	1
Tippecanoe	5	3	5	3
Tipton	1	1

	<i>Received.</i>		<i>Discharged.</i>		<i>Remaining.</i>		<i>Not Returned</i> <i>October 31.</i>	
	<i>Boys.</i>	<i>Girls.</i>	<i>Boys.</i>	<i>Girls.</i>	<i>Boys.</i>	<i>Girls.</i>	<i>Boys.</i>	<i>Girls.</i>
Vanderburgh	5	4	5	4
Vermillion	1	1
Vigo	5	8	1	..	4	8
Wabash	4	3	4	3
Warrick	1	3	1	3	1	1
Washington	3	3
Wayne	2	3	1	..	1	3	..	1
Wells	1	..	1
White	2	2
Whitley	1	1
	189	172	15	9	174	163	19	14

EXHIBIT No. 1.

*Condensed Financial Statement for the Fiscal Year Ending September 30, 1911.

<i>Receipts.</i>		<i>Disbursements.</i>	
Annual Appropriations—		Maintenance Expense ...	\$71,362 97
Maintenance	\$70,000 00	Industrial Expense	4,828 87
Industries	6,000 00	Balances, etc., to	
From Governor's Contingent Fund, account		General Fund—	
Maintenance	1,362 97	Maintenance	
Earnings—		Industries ...	\$1,171 13
Industrial	391 86	Earnings paid	
Ordinary	105 34	State Treas.**	497 20
Clothing Accounts (included in Maintenance	780 86	Clothing Accounts to State Treasurer for	
		Collection	780 86
			<hr/>
			2,449 19
			<hr/>
Total	\$78,641 03		\$78,641 03

* For New School, vide page 18.

** In November, 1910, the sum of \$200.00, not included here, was paid into the State Treasury on account of "Commission" and erroneously credited to Cash Earnings of the School.

EXHIBIT No. 2.

A Classified Statement of Expenditures on Account Maintenance for Fiscal
Year Ending September 30, 1911.

Attendants—

Trustees' salary	\$1,200 00
Officers, S. and W.....	6,884 91
Teachers, S. and W.....	21,182 82
Attendants, S. and W.....	3,923 49
Artisans, S. and W.....	4,672 30
Domestics, S. and W.....	4,471 95

Office Expense—

Blank books	17 08
Postage	50 30
Stationery and printing	49 91
Telegraphage	28 93
Telephones	137 55
Miscellaneous office expense	42 67

Household Equipment—

Bedding	75 05
Brooms, buckets, mops, etc.....	138 09
Cutlery and spoons.....	1 12
Carpets, shades, etc.....	8 87
Disinfectants, etc.	94 06
D. R. K. metal and woodenware.....	81 37
House furniture and upholstery.....
Laundry appliances	22 94
Napery	58 55
Queensware	72 83
Soap, soap stock, polishers, etc.....	900 55
Toweling	76 90
Toilet supplies	117 15
Miscellaneous household	64 68

School Expense—

Annals of the deaf.....
Art supplies	103 07
Library
Newspapers and periodicals.....	35 50
School supplies	263 34
Miscellaneous school expense	87 55

Heat, Light and Power—

Engineer's supplies	153 51
Electrician's supplies	102 60
Electric light	224 43
Fuel	6,088 26
Gas light	674 46
Miscellaneous Heat, Light and Power.....	1 05

EXHIBIT No. 2—Continued.

Grounds, Stock and Stable—

Farm and garden expense.....	\$29 00
Greenhouse and park expense.....	41 10
Provender	780 84
Stable expenses	68 03

Food Supplies—

Beans, hominy, rice, etc.....	464 21
Breadstuffs	3,284 94
Butter	1,277 91
Canned fruits	563 80
Canned vegetables	479 75
Canned meats and fish.....	64 80
Coffee and tea	388 75
Dried fruits	251 92
Eggs	277 19
Fish and oysters	109 10
Green fruits	377 22
Ice	471 00
Jellies, preserves, etc.....	187 32
Lard	53 61
Meats, fresh	3,467 72
Meats, smoked, salt, etc.....	769 73
Mackeral, codfish, herring, etc.....	10 00
Milk	
Poultry	596 03
Pickles, kraut and vinegar	100 18
Sugar	476 83
Syrup	140 49
Sauces, extracts, spices and salt.....	85 50
Vegetables	829 07
Unclassified food supplies	49 93

Pupil's Personal Expense—

Uniforms or suits	443 53
Shoes, etc.	125 51
Other clothing	118 76
Transportation, etc.	76 42
Miscellaneous P. P. E.....	11 80

Miscellaneous Classifications—

Amusements	141 16
Annual reports	158 12
Drugs, medicines and appliances.....	231 52
Fire protection and insurance	
Trustees' traveling expense	404 10
Watchman's service	150 00
Miscellaneous general expense	151 18
Water supply	250 00
Special nurse	229 32
New institution expense	791 01
Maintenance repairs	276 73

Total	\$71,362 97
-------------	-------------

EXHIBIT No. 2—Continued.

RECAPITULATION.

Attendants	\$42,335 47
Office expense	323 44
Household equipment	1,712 16
School expense	489 46
Heat, light and power.....	7,244 31
Grounds, stock and stable.....	918 97
Food supplies	14,777 00
Pupils' personal expense	776 02
Miscellaneous classifications	2,783 14
Total	<hr/> \$71,362 97

EXHIBIT No. 3.

A Classified Statement of Expenditures from the Maintenance Fund on
Account Maintenance Repairs During Fiscal Year Ending
September 30, 1911.

Current Expenses and Repairs—

Cement, brick, stone, lime, etc.....	\$10 20
Engineer's supplies and repairs.....	154 72
Electrical supplies and repairs.....	15 55
Glass, putty, etc.	41 00
Grading, graveling and sodding.....
Hardware	1 51
Lumber
Miscellaneous building repairs
Miscellaneous improvements and repairs.....
Miscellaneous housecleaning
Plastering
Papering
Painters' supplies	4 95
Painting by contract
Plumbing supplies and repairs.....	48 80
Roof repairs, etc.
Sewer and sewer repairs.....
Steam heating and repairs.....
Tools
Water supply and repairs.....
Whitewashing

Total maintenance repairs

\$276 73

EXHIBIT No. 4.

A Classified Statement of Expenditures on Account Industries During
Fiscal Year Ending September 30, 1911.

Industrial Expense—

Printing office, S. and W.....	\$990 00
Cabinet shop, S. and W.....	720 00
Shoe and harness shop, S. and W.....	599 94
Sewing-room, S. and W.....	360 00
Cooking classes, S. and W.....
Tin and metal work, S. and W.....
Miscellaneous industrial, S. and W.....
Printing office material	336 43
Cabinet shop material	154 30
Shoe shop material	763 59
Harness material
Sewing-room material	32 36
Cooking material
Tin and metal work material.....
Miscellaneous industrial material	872 25
Total	\$4,828 87

EXHIBIT No. 5.

Products of the Farm and Garden During the Fiscal Year Ending
September 30, 1911.

Beans, pecks, 13 $\frac{3}{4}$	\$3 25
Beets, bunches, 14 dozen.....	20
Beets, pecks, 22 $\frac{1}{2}$	4 15
Cabbage, heads, 179.....	4 42
Corn, dozens, 27.....	5 00
Grapes, pounds, 146.....	2 92
Lettuce, pounds, 73 $\frac{1}{4}$	5 99
Milk, gallons, 4,543 $\frac{5}{8}$	888 76
Onions, pecks, 11.....	2 61
Onions, dozens, 38 $\frac{3}{4}$	3 88
Parsnips, pecks, 7 $\frac{1}{2}$	3 75
Peas, pecks, 4 $\frac{1}{2}$	85
Pieplant, dozens, 75 5/12.....	9 65
Radishes, dozens, 13 $\frac{3}{4}$	1 88
Tomatoes, pecks, 65.....	11 05
Tomatoes, green, pecks, 4.....	50
Veal, pounds, 89.....	10 48
Total	\$959 43

EXHIBIT No. 6.

An Itemized Account of all Cash Earnings Received during the Fiscal
Year Ending September 30, 1911.

1910.		
Oct.	1.	Y. M. Koldyke, slops, August 1 to October 31..... \$5 00
"	1.	Charles E. Githens, 30 pounds rags..... 15
"	1.	Ella Welsh, 1 lot old mattings..... 1 50
"	30.	Printing office, subscriptions..... 62 25
"	30.	Cabinet shop, sales..... 4 20
		Total receipts for October, 1910..... \$73 10
Nov.	22.	Divers persons, 134 loads cinders..... \$33 50
"	22.	Y. M. Koldyke, slops, November 1 to January 31..... 5 00
"	30.	Printing office, subscriptions..... 15 00
"	30.	Shoe shop, private account, October and November..... 64 45
"	30.	Cabinet shop, sales..... 5 00
"	30.	Unknown, 4 loads cinders..... 90
		Total receipts for November, 1910..... \$123 85
Dec.	5.	Warren Watkins, broken window glass..... \$0 25
"	10.	B. Kelly, 40 pounds rags..... 20
"	22.	Olds Soap Company, 457 pounds tallow..... 31 99
		Total receipts for December, 1910..... \$32 44
1911.		
Jan.	4.	Printing office, subscriptions..... \$5 50
"	4.	Printing office, job work..... 50
"	4.	Cabinet shop, sales..... 5 80
"	4.	Shoe shop, private account, December, 1910..... 28 05
"	9.	R. O. Johnson, Supt., overcharge Pioneer Brass Works.. 50
"	9.	R. O. Johnson, Supt., overcharge Advance Paint Co..... 50
"	24.	M. P. Lawrence, slops, February 1 to April 30..... 5 00
		Total receipts for January, 1911..... \$45 85
Feb.	6.	Shoe shop, private account, January..... \$31 30
"	6.	Printing office, subscriptions..... 2 50
		Total receipts for February, 1911..... \$33 80
Mar.	6.	Shoe shop, private account, February..... \$38 55
"	6.	Cabinet shop, sales..... 5 00
"	6.	Printing office, subscriptions..... 1 50
"	6.	Printing office, job work..... 3 00
"	23.	I. Kirshowitz, 50 pounds rags..... 25
		Total receipts for March, 1911..... \$48 30

EXHIBIT No. 6—Continued.

1911.			
Apr.	1.	Shoe shop, private account, March.....	\$39 30
"	1.	Printing office, subscriptions.....	1 50
"	11.	A. Rosenthal, 40 pounds rags.....	20
"	18.	Allerdice and Company, 1 calf hide.....	1 15
"	29.	W. E. Todd, 12 loads cinders sold.....	3 00
Total receipts for April, 1911.....			\$45 15
May	1.	M. P. Lawrence, slops, May 1 to July 31, 1911.....	\$5 00
"	2.	Printing office, subscriptions.....	35
"	2.	Shoe shop, private account.....	43 10
"	2.	Cabinet shop, job work.....	1 15
"	31.	Shoe shop, private account.....	32 65
Total receipts for May, 1911.....			\$82 25
June 30.		W. E. Todd, for sales of 82 loads cinders.....	\$20 50
Aug.	1.	P. Howard, 2 loads cinders.....	\$0 50
"	1.	P. Howard, 1 load cinders.....	15
"	1.	William Lane, 3 loads cinders.....	75
"	1.	A. Rosenthal, 82 pounds rags.....	41
"	2.	William Lane, 1 load cinders.....	25
"	5.	Mr. Lawrence, slops, August 1 to September 30, 1911...	3 35
"	15.	Thomas Perry, 2 loads cinders.....	50
"	20.	Guy Justice, 1 load cinders.....	25
"	26.	Thomas Perry, 1 load cinders.....	25
Total receipts for August, 1911.....			\$6 41
Sept. 30.		Amount ordinary earnings for year.....	\$105 34
"	30.	Amount industrial earnings for year.....	403 31
			\$511 65
Less overpayment shoe shop account December 5, 1910..			14 45
Total earnings			\$497 20
1910.			
Nov. 7.		Paid Treasurer of State.....	\$73 10
Dec. 5.		Paid Treasurer of State.....	123 85
1911.			
Jan. 2.		Paid Treasurer of State.....	17 99
Feb. 6.		Paid Treasurer of State.....	45 85
Mar. 7.		Paid Treasurer of State.....	33 80
Apr. 3.		Paid Treasurer of State.....	48 30
May 1.		Paid Treasurer of State.....	45 15
June 5.		Paid Treasurer of State.....	82 25
July 3.		Paid Treasurer of State.....	20 50
Sept. 5.		Paid Treasurer of State.....	6 41
Total paid Treasurer of State.....			\$497 20

EXHIBIT No. 7.

A Schedule of All Orders Drawn on Treasurer of Institution by the Board of Trustees Thereof, and Paid by said Treasurer, Account Maintenance, During Fiscal Year Ending September 30, 1911. Original Vouchers in Itemized Form, Subscribed and Sworn to by Claimants, on File in Office of Auditor of State. Duplicates on File in Office of Institution.

November 10, 1910.

1.	R. O. Johnson, Superintendent....	Payroll, October, 1910.....	\$4,083 31
2.	R. O. Johnson, Superintendent....	Miscellaneous expenses	51 98
3.	Indianapolis Coal Company.....	Coal	835 78
4.	J. C. Perry and Company.....	Groceries and sundries.....	447 65
5.	Swift and Company.....	Fresh and smoked meats, etc	364 59
6.	Bryce Baking Company.....	Bread and cookies.....	320 67
7.	J. L. Keach.....	Fruits and vegetables.....	138 28
8.	Woolen and Callon.....	Putting in tank in boiler house	78 84
9.	P. W. Kennedy.....	Tank for boiler house.	68 00
10.	Taggart Baking Company.....	Pies	59 10
11.	A. J. McDuffie.....	Hay	58 47
12.	Harry Barncello	Salary, new institution.....	50 00
13.	Coonse and Caylor Ice Company...	Ice	49 80
14.	Indianapolis Gas Company.....	Artificial gas.....	47 04
15.	Crescent Paper Company.....	Toilet paper.....	45 00
16.	Belt Elevator and Feed Company..	Provender	29 20
17.	Charles A. Maguire.....	Salary, new institution.....	28 79
18.	Armour and Company.....	Fresh and smoked meats, etc.	324 23
19.	Utten E. Read.....	Salary, etc., new institution.	25 90
20.	Indianapolis Book & Stationery Co..	School supplies	20 80
21.	Indianapolis Light and Heat Co...	Electric light	18 97
22.	Vonnegut Hardware Company.....	Hardware	18 86
23.	The H. Lieber Company.....	Arts supplies	16 74
24.	Standard Oil Company.....	Cylinder oil	15 52
25.	Hollweg and Reese	Queensware	14 50
26.	Century Biscuit Company.....	Crackers	11 72
27.	George A. Nicholson.....	Fish and oysters.....	10 98
28.	W. B. Peake.....	Misc. retail groceries.....	10 49
29.	Hibben-Hollweg and Company....	Dry goods, etc.....	8 89
30.	Christian Off and Company.....	Kitchen supplies and repairs	8 58
31.	The A. Burdsal Company.....	Glass, etc.	7 40
32.	Columbia Grocery Company.....	Misc. retail groceries	14 73
33.	Dawson-Pinto Company.....	Fruits	6 70
34.	Joseph W. Buchanan.....	Carriage repairs	6 45
35.	Daniel Stewart Company.....	Drugs, etc.	6 23
36.	Thorton-Levey Company	School supplies	6 22
37.	Noblesville Milling Company.....	Flour	6 00
38.	C. P. Lesh Paper Company.....	Paper	5 95
39.	Kirkheff Brothers & Company.....	Plumbing	5 25
40.	Indiana Paper Company.....	Paper	4 92
41.	William L. Baker & Company....	Paper	4 70
42.	Bargain Furniture Store.....	Stove	4 50
43.	Badger Furniture Company.....	Curtains, etc.	4 00
44.	Pettis Dry Goods Company.....	Towels, etc.	3 98
45.	Techentin & Freiberg.....	Stable supplies	3 15
46.	Schloss Brothers.....	Clothing	2 00
47.	Yule and Rodefelf.....	Horseshoeing	1 50
48.	Welsbach Company	Gas fixtures	1 10
49.	Remington Typewriter Company..	Carbon paper	1 00
50.	David C. Cook Publishing Company.	Periodicals	15 09

Total bills allowed November 10, 1910. \$7,373 55

EXHIBIT No. 7—Continued.

December 8, 1910.

51.	R. O. Johnson, Superintendent....	Payroll, November, 1910.....	\$4,115 89
52.	R. O. Johnson, Superintendent....	Miscellaneous expenses	82 92
53.	Indianapolis Coal Company.....	Coal	591 93
54.	Swift and Company.....	Fresh and smoked meats and poultry	424 92
55.	J. C. Perry and Company.....	Groceries and sundries.....	402 17
56.	Bryce Baking Company.....	Bread and cakes	310 54
57.	Armour and Company.....	Fresh meats and butterine...	228 67
58.	J. L. Keach.....	Fruits and vegetables.....	100 46
59.	Indianapolis Gas Company.....	Artificial gas	72 18
60.	Taggart Baking Company.....	Pies	67 04
61.	Harry Barnecko	Salary—new institution	46 66
62.	Belt Elevator and Feed Company..	Provender	45 50
63.	The A. Kiefer Drug Company....	Drugs, etc.	36 39
64.	Pettis Dry Goods Company.....	Dry goods	30 05
65.	Coonse and Caylor Ice Company..	Ice	27 30
66.	Utten E. Read	Salary—new institution	25 00
67.	A. J. McDuffie	Hay	24 75
68.	W. B. Peake.....	Misc. retail groceries.....	17 57
69.	Indianapolis Dairy Company.....	Cheese	15 70
70.	Central Machine Works.....	Repairs to electric light pump.	15 55
71.	Columbia Grocery Company.....	Misc. retail groceries.....	15 05
72.	Indianapolis Poultry Company....	Eggs	15 00
73.	American Book Company.....	School supplies.	14 88
74.	Indianapolis Light & Heat Co....	Electric light	13 73
75.	The J. F. Darmody Company....	Candy	13 40
76.	Century Biscuit Company.....	Crackers	12 61
77.	Noblesville Milling Company....	Flour	11 30
78.	Daniel Stewart Company.....	Drugs, etc.	10 20
79.	Kirkhoff Brothers & Company....	Plumbing	9 73
80.	J. H. Poggemeyer.....	Shoes	9 25
81.	George A. Nicholson.....	Fish and oysters.....	8 58
82.	Wm. B. Burford.....	Annual register, etc.....	7 80
83.	Varney Electric Company.....	Electrician's supplies.....	6 60
84.	Hibben-Hollweg and Company....	Clothing	6 47
85.	The Albert Gall Company.....	Papering, etc.	5 55
86.	Kipp Brothers Company.....	Chamois skins	5 00
87.	Vonnegut Hardware Company....	Hardware	4 28
88.	Thornton-Levey Company.....	Office supplies, etc.....	3 65
89.	Indianapolis Book & Stationery Co.	School supplies	3 64
90.	Yule and Rodefeld.....	Horseshoeing	3 00
91.	Dawson-Pinto Company.....	Fruits	2 70
92.	C. P. Lesh Paper Company.....	Paper	1 54
93.	Lilly and Stalnaker.....	Hardware	1 45
94.	R. W. Furnas Ice Cream Company.	Ice Cream	1 30
95.	The H. Lieber Company.....	Art supplies	1 23
96.	George Hitz and Company.....	Fruits	1 20
97.	Frank Pfleger	Repairing surgical instruments	8 55
Total bills allowed December 8, 1910.....			\$6,878 88

January 12, 1911.

98.	R. O. Johnson, Superintendent....	Payroll, December, 1910.....	\$4,164 30
99.	R. O. Johnson, Superintendent....	Miscellaneous expenses	61 76
100.	H. B. Brown, President.....	Salary and expenses	103 80
101.	William Geake, Treasurer.....	Salary and expenses	95 40
102.	Ele Stansbury, Vice-President....	Salary and expenses	92 55
103.	W. P. Herron, Secretary.....	Salary and expenses	90 00
104.	Indianapolis Coal Company.....	Coal	1,359 90

EXHIBIT No. 7—Continued.

January 12, 1911—Continued.

105.	M. O'Connor and Company.....	Groceries and sundries.....	\$407 22
106.	Swift and Company.....	Fresh meats, eggs and cheese.....	360 08
107.	Bryce Baking Company.....	Bread and crackers.....	304 26
108.	Armour and Company.....	Fresh and smoked meats and butterine.....	286 80
109.	Florence Spaulding.....	Special nurse.....	108 47
110.	Vondeesaar and Company.....	Fruits and vegetables.....	103 46
111.	Indianapolis Poultry Company....	Poultry.....	97 31
112.	Pettis Dry Goods Company.....	Dry goods, etc.....	80 65
113.	Indianapolis Gas Company.....	Artificial gas.....	75 30
114.	J. F. Darmody Company.....	Candy.....	65 86
115.	William Rouse and Son.....	Provender.....	64 75
116.	Willets Pie Company.....	Pies.....	58 80
117.	Indianapolis Water Company.....	Water rent.....	50 00
118.	Roy F. Fisher.....	Salary new institution.....	50 00
119.	U. S. Laundry and Supply Co....	Soap chips.....	49 50
120.	Daniel Stewart Company.....	Drugs, etc.....	39 44
121.	American District Telegraph Co..	Watchman's service.....	37 50
122.	Taggart Baking Company.....	Pies.....	30 72
123.	Western Methodist Book Concern..	School supplies.....	30 70
124.	U'ten E. Read.....	Salary, etc.—new institution.....	27 50
125.	West Disinfecting Company.....	Disinfectants.....	22 08
126.	Coonse and Caylor Ice Company..	Ice.....	20 10
127.	Indianapolis Telephone Company..	Telephone rental.....	18 50
128.	The Indiana Reformatory.....	Brooms.....	17 70
129.	W. B. Peake.....	Misc. groceries.....	17 24
130.	J. H. Poggemeyer.....	Shoes.....	15 45
131.	Hollweg and Reese.....	Queensware.....	15 25
132.	Indianapolis Light & Heat Co....	Electric light.....	13 73
133.	Indianapolis Book & Stationery Co..	School supplies.....	12 64
134.	Central Union Telephone Company.	Telephone rental.....	12 50
135.	Olds Soap and Chemical Company.	Soap chips.....	12 26
136.	George A. Nicholson.....	Fish and oysters.....	11 82
137.	Lilly and Stalnaker.....	Electrician's supplies.....	9 48
138.	Hibben-Hollweg and Company.....	Clothing.....	9 54
139.	Levey Brothers & Company.....	Blank books.....	9 45
140.	Royce Electric Company.....	Electrician's supplies.....	8 17
141.	George Hitz and Company.....	Fruits.....	7 35
142.	The H. Lieber Company.....	Art supplies.....	7 01
143.	J. L. Keach.....	Apples.....	7 00
144.	Columbia Grocery Company.....	Misc. groceries.....	6 85
145.	Noblesville Milling Company.....	Flour.....	6 00
146.	Indiana Paper Company.....	Candy boxes.....	5 96
147.	Hide, Leather and Belting Co....	Belting, etc.....	5 90
148.	Schloss Brothers.....	Clothing.....	4 00
149.	Indianapolis Star.....	Newspapers.....	3 90
150.	C. W. Meikel Company.....	Electrician's supplies.....	3 85
151.	Vonnegut Hardware Company.....	Hardware.....	3 81
152.	Yule and Rodefelf.....	Horseshoeing.....	3 50
153.	Indianapolis News.....	Newspapers.....	2 70
154.	R. Kinklin.....	Rental Santa Claus outfit... ..	1 75
155.	William H. Armstrong Company..	School supplies.....	1 70
156.	Central Supply Company.....	Engineer's supplies.....	1 50
157.	Mrs. A. E. Faerber.....	Clothing.....	1 00
158.	William L. Baker Company.....	Clock dials.....	1 00
159.	C. P. Lesh Paper Company.....	Paper.....	.91
160.	Standard Oil Company.....	Gasoline.....	53

Total bills allowed January 12, 1911..... \$8,598 16

EXHIBIT No. 7—Continued.

February 8, 1911.

161.	R. O. Johnson, Superintendent....	Payroll, January, 1911.....	\$4,172 43
162.	R. O. Johnson, Superintendent....	Miscellaneous expenses	33 69
163.	Indianapolis Coal Company.....	Coal	828 76
164.	Swift and Company.....	Fresh and smoked meats, etc.	445 28
165.	J. C. Perry and Company.....	Groceries and sundries	434 70
166.	Bryce Baking Company.....	Bread and cakes	271 72
167.	Armour and Company.....	Fresh and smoked meats and butterine	227 60
168.	E. F. Shideler and Company.....	Fruits and vegetables	91 96
169.	Indianapolis Gas Company.....	Artificial gas	91 74
170.	Conrad Ostermeyer	Hay	83 30
171.	Willetts Pie Company.....	Pies	75 60
172.	Indianapolis Poultry Company....	Poultry	50 62
173.	Roy F. Fisher.....	Watchman at new institution	50 00
174.	U. S. Laundry Soap and Sup. Co....	Soap chips	48 18
175.	Belt Elevator and Feed Company..	Provender	44 50
176.	Daniel Stewart Company.....	Drugs	42 02
177.	Central Supply Company.....	Engineer's supplies	41 57
178.	Pettis Dry Goods Company.....	Dry goods, etc.	30 86
179.	Utten E. Read.....	Salary etc.—new institution.	25 75
180.	Indianapolis Light & Heat Co....	Electric light	21 30
181.	Coonse and Caylor Ice Company..	Ice	19 20
182.	Indianapolis Telephone Company..	Telephone rental—new insti- tution	20 00
183.	J. H. Poggemeyer	Shoes	17 60
184.	Carman and Fryer	Electrician's supplies	17 38
185.	William L. Baker and Company..	School supplies	16 70
186.	C. P. Lesh Paper Company.....	Paper	15 65
187.	W. B. Peake.....	Misc. retail groceries.....	15 33
188.	Hibben, Hollweg and Company....	Clothing, etc.	14 25
189.	Indianapolis Paint and Color Co..	Glass, etc.	13 92
190.	Olds Soap and Chemical Company..	Soap chips	13 20
191.	Columbia Grocery Company.....	Misc. retail groceries	12 33
192.	Century Biscuit Company.....	Crackers	12 22
193.	Noblesville Milling Company.....	Flour	11 40
194.	Christian Off and Company.....	Tinning	9 70
195.	Booth Fisheries Company.....	Fish and oysters	9 20
196.	Frank M. Dell.....	Brick, etc.	8 00
197.	The A. Burdsal Company.....	Paints, etc.	6 65
198.	Indianapolis Book & Stationery Co.	School supplies	5 90
199.	Lilly & Stalnaker.....	New institution supplies	4 95
200.	Kirkhoff Brothers & Company....	Plumbing	4 60
201.	Hollweg and Reese	Quensware	4 55
202.	Vonnegut Hardware Company.....	Hardware	4 17
203.	Schloss Brothers	Clothing	4 05
204.	Standard Oil Company.....	Floor oil	3 30
205.	W. K. Stewart Company.....	Office supplies	2 10
206.	Joseph W. Buchanan.....	Engineer's supplies	2 00
207.	William Rouse and Son.....	Hay	1 50
208.	Indiana Paper Company.....	Paper, etc.	1 47
209.	Yule and Rodefeld.....	Horseshoeing	1 00
210.	R. W. Furnas Ice Cream Company.	Ice cream	85
211.	Schloss Brothers	Uniforms	213 82
Total bills allowed February 8, 1911			\$7,598 57

EXHIBIT No. 7—Continued.

March 15, 1911.

212.	R. O. Johnson, Superintendent....	Payroll, February, 1911.....	\$4,032 17
213.	R. O. Johnson, Superintendent....	Miscellaneous expenses	78 84
214.	Indianapolis Coal Company.....	Coal	403 02
215.	J. C. Perry and Company.....	Groceries	331 23
216.	Armour and Company.....	Fresh and smoked meats and butterine	297 78
217.	Bryce Baking Company.....	Bread and cakes	286 00
218.	Swift and Company.....	Fresh meats	222 14
219.	M. O'Connor and Company.....	Groceries sundries	83 85
220.	E. F. Shideler and Company.....	Fruits and vegetables	73 58
221.	J. R. Budd and Company.....	Poultry and eggs.....	71 95
222.	Indianapolis Gas Company.....	Artificial gas	67 56
223.	Pittsford Purity Pic Company....	Pies	67 20
224.	Alexander L. Morrison.....	Watchman—new institution.	50 00
225.	U. S. Laundry Soap and Sup. Co..	Soap chips	49 50
226.	Indianapolis Belting & Sup. Co..	Engr.'s and electrician's sup.	47 78
227.	Belt Elevator and Feed Company..	Provender	43 40
228.	Conrad Ostermeyer	Hay	31 54
229.	Daniel Stewart Company	Drugs, etc.	30 58
230.	Joseph Gardner	Kitchen supplies	29 10
231.	Kirkhoff Brothers and Company...	Plumbing	28 07
232.	Utten E. Read.....	Salary, new institution.....	25 00
233.	Indianapolis Book & Stationery Co..	School supplies	23 95
234.	Coonse and Caylor Ice Company...	Ice	22 80
235.	Indiana Reformatory	Brooms	21 25
236.	W. C. Fischer and Company.....	Cheese	20 96
237.	Indianapolis Coal Company.....	Kitchen coal.....	20 27
238.	Indianapolis Light and Heat Co..	Electric light	17 18
239.	Varney Electric Company.....	Electrician's supplies	13 22
240.	J. V. Zartman Oil Company.....	Oils	13 20
241.	W. B. Peake	Misc. retail groceries.....	12 16
242.	Booth Fisheries Company.....	Fish and oysters	11 96
243.	Century Biscuit Company.....	Crackers	9 56
244.	Joseph Dixon Crucible Company...	School supplies	9 00
245.	Lilly and Stalnaker.....	Electrician's supplies	8 57
246.	Louis P. Simon.....	Grate bars	5 88
247.	Columbia Grocery Company.....	Misc. retail groceries	5 10
248.	The Crane Company.....	Engineer's supplies	4 85
249.	Hibben Hollweg and Company.....	Dry goods, etc.....	4 17
250.	Joseph W. Buchanan.....	Repairing cart wheels	3 75
251.	J. H. Poggemeyer	Shoes	2 75
252.	Yule and Rodefeld	Horseshoeing	1 50
253.	Hollweg and Reese	Queensware	1 42
254.	Indiana Paper Company.....	School supplies	1 25
255.	F. H. Langsenkamp.....	Art supplies	1 13
256.	The A. Burdsal Company.....	Oil	1 05
257.	The H. Lieber Company.....	Art supplies	1 00
Total bills allowed March 15, 1911.....			\$6,588 17

April 6, 1911.

258.	R. O. Johnson, Superintendent....	Payroll, March, 1911.....	\$4,106 20
259.	R. O. Johnson, Superintendent....	Miscellaneous expenses.....	58 19
260.	H. B. Brown, President.....	Salary and expenses.....	132 60
261.	Ele Stansbury, Vice-President....	Salary and expenses.....	98 40
262.	W. P. Herron, Secretary.....	Salary and expenses.....	90 00
263.	William Geake, Treasurer.....	Salary and expenses.....	95 40
264.	Indianapolis Coal Co.....	Coal	630 52

EXHIBIT No. 7—Continued.

April 6, 1911—Continued.

265.	Swift and Company.....	Fresh meats and eggs.....	\$427 19
266.	J. C. Perry and Company.....	Groceries and sundries.....	413 98
267.	Bryce Baking Company.....	Bread, cakes and crackers...	329 31
268.	Armour and Company.....	Fresh and smoked meats and butterine	225 72
269.	Pittsford Purity Pie Company....	Pies	75 60
270.	Schloss Brothers.....	Uniforms	71 65
271.	E. F. Shideler & Company.....	Fruits and vegetables.....	70 43
272.	Indianapolis Gas Company.....	Artificial gas.....	61 14
273.	Pettis Dry Goods Company.....	Dry goods.....	57 57
274.	Indianapolis Water Company....	Water rent.....	50 00
275.	U. S. Laundry Soap & Supply Co.	Soap chips.....	49 30
276.	Crescent Paper Company.....	Toilet paper.....	45 00
277.	Belt Elevator and Feed Company..	Provender	43 70
278.	Pearl Street Produce Company....	Poultry	43 42
279.	American District Telegraph Co..	Watchman's service.....	37 50
280.	Pearl Dodd.....	Special nurse.....	33 43
281.	Coonse and Caylor Ice Company..	Ice	29 40
282.	Utten E. Read.....	Salary, new institution.....	26 50
283.	The Sanitas Company.....	Disinfectants	23 70
284.	Indianapolis Light and Heat Co..	Electric light.....	21 98
285.	West Disinfecting Company.....	Disinfectants	21 60
286.	Charles Ostermeyer	Hay	19 45
287.	Indianapolis Telephone Company..	Telephone rental.....	18 50
288.	Pitman-Myers Company.....	Drugs	17 75
289.	Indiana Paper Company.....	Paper	16 53
290.	The H. Lieber Company.....	Art supplies.....	15 40
291.	Alexander L. Morrison.....	Watchman, new institution..	50 00
292.	Indianapolis Book and Sta. Co....	School supplies.....	13 69
293.	Daniel Stewart Company.....	Boiler compound.....	13 37
294.	W. B. Peake.....	Miscellaneous retail groceries.	13 18
295.	George A. Nicholson.....	Fish and oysters.....	12 69
296.	Central Union Telephone Co.....	Telephone rental.....	12 50
297.	Noblesville Milling Company.....	Flour	11 00
298.	Varney Electric Company.....	Electrician's supplies.....	10 40
299.	Columbia Grocery Company.....	Miscellaneous retail groceries.	10 39
300.	Indianapolis Belting & Supply Co.	Engineer's supplies.....	10 07
301.	J. H. Poggemeyer.....	Shoes	9 75
302.	C. P. Lesh Paper Company.....	Paper	8 27
303.	Hibben, Hollweg and Company....	Clothing, etc.....	5 65
304.	Charles D. Pearson & Company...	Queensware	5 33
305.	Indianapolis Paint & Color Co....	Glass	5 22
306.	L. S. Ayres & Company.....	Curtain goods.....	5 00
307.	Joseph W. Buchanan.....	Wagon repairs.....	5 00
308.	Peerless Foundry Company.....	Stove lids.....	4 20
309.	Indianapolis Star	Newspapers	3 90
310.	Vonnegut Hardware Company.....	Hardware	3 17
311.	Yule and Rodefeld.....	Horseshoeing	3 00
312.	Frank Nickson	Day watchman, new instit'n.	3 00
313.	Indianapolis News	Newspapers	2 70
314.	Standard Oil Company.....	Engine oil.....	2 70
315.	F. H. Langsenkamp.....	Art supplies.....	2 18
316.	Central Rubber and Supply Co....	Rubber bands.....	1 98
317.	Kipp Brothers Company.....	Toothpicks, etc.....	1 88
318.	Frank M. Dell.....	Cement	1 00

Total bills allowed April 6, 1911..... \$7,688 08

EXHIBIT No. 7—Continued.

May 9, 1911.

319.	R. O. Johnson, Superintendent....	Payroll, April, 1911.....	\$4,127 62
320.	R. O. Johnson, Superintendent....	Miscellaneous expenses.....	21 93
321.	Indianapolis Coal Company.....	Coal	728 68
322.	M. O'Connor and Company.....	Groceries and sundries.....	457 57
323.	Swift and Company.....	Fresh and smoked meats....	381 97
324.	Bryce Baking Company.....	Bread and cakes.....	288 68
325.	Armour and Company.....	Fresh and smoked meats and butterine	161 98
326.	Indianapolis Poultry Company....	Poultry and eggs.....	112 10
327.	Pettis Dry Goods Company.....	Dry goods, etc.....	102 19
328.	E. F. Shideler & Company.....	Fruits and vegetables.....	92 19
329.	U. S. Laundry Soap & Supply Co.	Soap chips.....	69 02
330.	Pittsford Purity Pie Company.....	Pies	67 20
331.	Indianapolis Gas Company.....	Artificial gas.....	61 98
332.	Alexander L. Morrison.....	Watchman, new institution..	50 00
333.	F. E. Janes Coal and Grain Co....	Provender	45 50
334.	Margaret I. Bolyn.....	Salary as teacher.....	41 74
335.	Pearl Dodd.....	Special nurse.....	37 03
336.	Coonse and Caylor Ice Company....	Ice	33 00
337.	Pitman-Myers Company.....	Drugs	30 28
338.	Utten E. Read.....	Salary, etc., new institution..	25 75
339.	J. H. Poggemeyer.....	Shoes	25 75
340.	A. G. Spalding and Brothers.....	Baseball supplies.....	25 00
341.	Frank Nickson.....	Watchman, new institution..	18 00
342.	Indiana Reformatory.....	Brooms	17 70
343.	Huntington's Seed Store.....	Flower and garden seeds....	15 45
344.	American Laundry Machinery Co.	Mangle blankets.....	15 41
345.	Hollweg and Reese.....	Queensware	14 74
346.	The August M. Kuhn Company....	Cheese	14 65
347.	W. B. Peake.....	Miscellaneous retail groceries.	13 96
348.	Olds Soap and Chemical Co.....	Soap chips.....	13 15
349.	Columbia Grocery Company.....	Miscellaneous retail groceries.	13 13
350.	Indianapolis Light & Heat Co....	Electric light.....	12 68
351.	Hibben, Hollweg and Company....	Clothing, etc.....	10 64
352.	Crescent Paper Company.....	Paper	8 00
353.	L. A. Greiner and Son.....	Veterinary services.....	7 50
354.	Indianapolis Book & Sta. Co.....	School supplies.....	7 23
355.	The Indianapolis Star.....	Advertising	5 94
356.	John O'Neill.....	Flour	4 35
357.	Booth Fisheries Company.....	Fish	4 32
358.	Albert Schilling.....	Repairing lawnmowers.....	4 00
359.	C. P. Lesh Paper Company.....	Paper	3 05
360.	David C. Cook Publishing Co.....	Periodicals	2 60
361.	Brinker and Habeney.....	Art supplies.....	2 46
362.	The A. Burdsal Company.....	Sponges, etc.....	1 70
363.	Vonnegut Hardware Company....	Axe handles, etc.....	1 40
364.	Kirkhoff Brothers and Company...	Plumbing	1 15
365.	R. W. Furnas Ice Cream Co.....	Ice cream.....	1 00
366.	Charles Mayer and Company.....	Dyes	1 00
367.	Charles J. Gardner.....	Meats	85
Total bills allowed May 9, 1911			\$7,202 62

June 16, 1911.

368.	R. O. Johnson, Superintendent....	Payroll, May, 1911.....	\$4,193 80
369.	R. O. Johnson, Superintendent....	Miscellaneous expenses	13 33
370.	R. O. Johnson, Superintendent....	Pupils' R. R. fare and transfer	70 77
371.	M. O'Connor and Company.....	Groceries and sundries.....	415 51
372.	Indianapolis Coal Company.....	Coal	344 90

EXHIBIT No. 7—Continued.

June 16, 1911—Continued.

373.	Swift and Company.....	Fresh meats and cheese.....	\$337 34
374.	Bryce Baking Company.....	Bread and cakes.....	271 81
375.	Armour and Company.....	Fresh and smoked meats and butterine	188 77
376.	Wm. B. Burford.....	Annual reports, etc.....	184 42
377.	Indianapolis Poultry Company....	Poultry and eggs.....	131 36
378.	J. L. Keach.....	Fruits and vegetables.....	126 30
379.	Pittsford Purity Pie Company....	Pies	67 20
380.	Coonse and Caylor Ice Company..	Ice	58 65
381.	Indianapolis Gas Company.....	Artificial gas	51 24
382.	W. C. Fischer and Company.....	Smoked meats	51 23
383.	Pearl Dodd	Special nurse	50 39
384.	James W. Russell.....	Watchman—new institution..	50 00
385.	William Rouse and Son.....	Provender	49 70
386.	U. S. Laundry Soap & Supply Co...	Soap chips	48 60
387.	M. Lena Dixon.....	Teacher's salary	42 30
388.	Frank Nickson	Day watchman—new institu- tion	31 00
389.	Indianapolis Belting & Supply Co.	Lawn hose	26 00
390.	Utten E. Read.....	Salary—new institution	25 00
391.	Indianapolis Book & Stationery Co.	School supplies	22 46
392.	Schloss Brothers	Clothing	21 50
393.	W. B. Peake.....	Misc. retail groceries.....	20 49
394.	J. H. Poggemeyer.....	Shoes	17 85
395.	Indianapolis Light & Heat Co....	Electric light.....	16 35
396.	Century Biscuit Co.....	Crackers	12 89
397.	C. P. Lesh Paper Company.....	Paper	11 98
398.	R. W. Furnas Ice Cream Company.	Ice cream	11 90
399.	Hollweg and Reese.....	Queensware	10 60
400.	Dawson-Pinto Company	Fruits and vegetables.....	8 20
401.	Booth Fisheries Company.....	Fish	6 72
402.	Hibben, Hollweg and Company...	Clothing	6 09
403.	Vonnegut Hardware Company.....	Hardware	7 84
404.	Pitman-Myers Company	Drugs	5 93
405.	Columbia Grocery Company.....	Misc. retail groceries	5 92
406.	Indianapolis News	Advertising—new institution..	5 12
407.	Indianapolis Sun	Advertising—new institution..	4 95
408.	John O'Neill	Flour	4 80
409.	Pettis Dry Goods Company.....	Combs, etc.	4 73
410.	Fulton-Evans Company	Index cards	3 40
411.	Frank Rodefelf	Horseshoeing	3 00
412.	A. Wiegand and Sons.....	Rent of palms	2 00
413.	Albert Schiffing	Repairing lawn mowers.....	2 00
414.	Varney Electric Company.....	Electrician's supplies.....	1 50
415.	The H. Lieber Company.....	Art supplies	1 40
416.	Indiana Paper Company.....	Paper	1 34
417.	Frank M. Dell.....	Fire clay.....	1 20
Total bills allowed June 16 1911			\$7,051 78

July 17, 1911.

418.	R. O. Johnson, Superintendent....	Payroll, June, 1911.....	\$3,859 12
419.	R. O. Johnson, Superintendent....	Miscellaneous expenses	107 41
420.	H. B. Brown, President.....	Salary and expenses.....	103 80
421.	Ele Stansbury, Vice-President....	Salary and expenses.....	110 10
422.	W. P. Herron, Secretary.....	Salary and expenses.....	92 50
423.	William Geake, Treasurer.....	Salary and expenses.....	109 00

EXHIBIT No. 7—Continued.

July 17, 1911—Continued.

424.	Swift and Company.....	Fresh meats	\$111 34
425.	Schloss Brothers	Uniforms	102 00
426.	J. L. Keach	Fruits and vegetables.....	80 34
427.	M. O'Connor and Company.....	Groceries	65 79
428.	Coonse and Caylor Ice Company...	Ice	56 40
429.	Indianapolis Water Company.....	Water supply	50 00
430.	James W. Russell.....	Night watchman—new insti- tution	50 00
431.	William Rouse and Son.....	Provender	48 00
432.	Indianapolis Gas Company.....	Artificial gas	43 14
433.	American District Telegraph Co....	Watchman's service	37 50
434.	Armour and Company.....	Butterine, hams and lard....	28 64
435.	Bryce Baking Company.....	Bread and cakes	22 91
436.	U. S. Laundry Soap and Supply Co.	Soap chips	22 56
437.	Indianapolis Coal Company.....	Coal	22 33
438.	J. C. Perry and Company.....	Grocer's sundries	22 05
439.	Pearl Street Produce Company....	Poultry	20 00
440.	Indianapolis Light & Heat Co....	Electric light	19 50
441.	Indianapolis Telephone Company...	Telephone rental	18 50
442.	W. B. Peake.....	Misc. groceries	17 11
443.	West Disinfecting Company.....	Disinfectants	16 74
444.	Wm. B. Burford	Envelopes	14 75
445.	Dawson-Pinto Company	Fruits	13 85
446.	Central Union Telephone Company.	Telephone rental	12 50
447.	Booth Fisheries Company.....	Fish	12 18
448.	Pittsford Purity Pie Company....	Pies	11 64
449.	Indianapolis Poultry Company....	Poultry and eggs.....	11 35
450.	Indiana Paper Company.....	Paper	9 85
451.	The A. Burdsal Company.....	Paints	8 18
452.	Columbia Grocery Company.....	Misc. groceries	7 37
453.	Daniel Stewart Company.....	Drugs	7 21
454.	John O'Neill	Flour	4 80
455.	Indianapolis Star	Newspapers	3 90
456.	Vonnegut Hardware Company....	Hardware	3 05
457.	Indianapolis News	Newspapers	2 70
458.	Harmon and Hall	Mower knives	2 30
459.	Atlas Paper Company.....	Paper	1 77
460.	Frank Rodefeld	Horseshoeing	1 50
461.	Huntington's Seed Store.....	Garden seeds	1 25
462.	Pettis Dry Goods Company.....	Hat boxes, etc.	1 00

Total bills allowed July 17, 1911 \$5,367 93

August 10, 1911.

463.	R. O. Johnson, Superintendent....	Payroll, July, 1911.....	\$1,381 31
464.	R. O. Johnson, Superintendent....	Miscellaneous expenses	56 82
465.	Indianapolis Coal Company.....	Coal	165 74
466.	Swift and Company.....	Fresh meats	112 51
467.	M. O'Connor and Company.....	Groceries and sundries	71 33
468.	J. L. Keach.....	Fruits and vegetables.....	66 19
469.	Armour and Company.....	Smoked meats, butter and lard	62 57
470.	Coonse & Caylor Ice Company....	Ice	49 05
471.	Indianapolis Poultry Company....	Poultry and eggs.....	43 11
472.	Indianapolis Gas Company.....	Artificial gas	30 90
473.	Belt Elevator and Feed Company.	Provender	28 50
474.	Indianapolis Light and Heat Co.	Electric light	21 98

EXHIBIT No. 7—Continued.

August 10, 1911—Continued.

475.	Bryce Baking Company.....	Bread and cakes.....	\$26 52
476.	Dawson-Pinto Company	Fruits	18 25
477.	W. B. Peake.....	Misc. retail groceries	17 77
478.	Columbia Grocery Company.....	Misc. retail groceries	12 54
479.	Pittsford Purity Pie Company.....	Pies	10 08
480.	Booth Fisheries Company.....	Fish	7 54
481.	Standard Oil Company.....	Engineer's supplies	4 20
482.	Techentin & Freiberg.....	Stable supplies	2 30
483.	Frank Rodefelf	Horseshoeing	2 25
484.	Daniel Stewart Company.....	Drugs	1 90
485.	L. A. Greiner & Son.....	Veterinary services	1 50
486.	The Welsbach Company.....	Gas fixtures	1 05
487.	W. E. Coover, V. S.....	Venterinary services	16 00
488.	Wm. B. Burford.....	Typewriter ribbons, etc.....	1 80
Total bills allowed August 10, 1911.....			\$2,207 71

September 7, 1911.

489.	R. O. Johnson, Superintendent....	Payroll, August, 1911.....	\$1,285 05
490.	R. O. Johnson, Superintendent....	Miscellaneous expenses	113 95
491.	Swift and Company.....	Fresh meats and eggs.....	158 90
492.	Indianapolis Coal Company.....	Coal	93 55
493.	J. C. Perry and Company.....	Groceries and sundries.....	81 74
494.	William Rouse and Son.....	Provender	77 61
495.	Coonse and Caylor Ice Company..	Ice	66 60
496.	J. L. Keach.....	Fruits and vegetables.....	41 36
497.	Armour and Company.....	Smoked meats and butterine..	39 28
498.	Indianapolis Gas Company.....	Artificial gas	31 62
499.	Indianapolis Poultry Company....	Poultry	25 22
500.	Indianapolis Light and Heat Co..	Electric light	22 65
501.	Bryce Baking Company.....	Bread and cakes	22 17
502.	W. B. Peake	Misc. retail groceries.....	16 93
503.	Pittsford Purity Pie Company....	Pies	14 40
504.	Columbia Grocery Company.....	Misc. retail groceries.....	14 34
505.	F. H. Langsenkamp.....	Repairing stock boiler.....	8 50
506.	Pettis Dry Goods Company.....	Kitchen supplies, etc.....	7 52
507.	L. S. Ayres & Company.....	Misc. household supplies.....	6 78
508.	Booth Fisheries Company.....	Fish	6 76
509.	Dawson-Pinto Company	Fruits and vegetables.....	5 30
510.	Indianapolis News	Advertising	5 04
511.	Joseph W. Buchanan.....	Wagon repairs	4 50
512.	Indianapolis Star	Advertising	3 96
513.	Frank Rodefelf	Horseshoeing	3 75
514.	H. Glick and Company.....	Melons	3 00
515.	R. W. Furnas Ice Cream Company.	Ice cream	2 80
516.	C. P. Lesh Paper Company.....	Paper	2 20
517.	Indiana Paper Company.....	Twine, etc.	1 70
Total bills allowed September 7, 1911.....			\$2,167 18

September 25, 1911.

518.	R. O. Johnson, Superintendent....	Payroll, September, 1911....	\$1,306 12
519.	R. O. Johnson, Superintendent....	Miscellaneous expenses	46 72
520.	R. O. Johnson, Superintendent....	Clothing, etc.	93 50
521.	H. B. Brown, President.....	Salary and expenses.....	84 80
522.	Ele Stansbury, Vice-President....	Salary and expenses.....	104 25
523.	W. P. Herron, Secretary.....	Salary and expenses.....	92 50

EXHIBIT No. 7—Continued.

September 25, 1911—Continued.

524.	William Geake, Treasurer.....	Salary and expenses.....	\$109 00
525.	Swift and Company.....	Fresh meats and eggs.....	114 00
526.	M. O'Connor and Company.....	Groceries and sundries.....	108 77
527.	Indianapolis Water Company.....	Water rental	100 00
528.	Indianapolis Coal Company.....	Coal	62 88
529.	Armour and Company.....	Smoked meats and butterine	51 28
530.	J. L. Keach	Fruits and vegetables.....	41 66
531.	Belt Elevator and Feed Company..	Provender	41 47
532.	Indianapolis Gas Company.....	Artificial gas	40 62
533.	Coonse and Caylor Ice Company..	Ice	38 70
534.	American District Telegraph Co..	Watchman's service	37 50
535.	Indianapolis Light and Heat Co..	Electric light	24 38
536.	W. B. Peake.....	Misc. retail groceries.....	22 07
537.	Bryce Baking Company.....	Bread and cakes	19 77
538.	Indianapolis Telephone Company..	Telephone rental	18 50
539.	Indianapolis Poultry Company....	Poultry	17 84
540.	Columbia Grocery Company.....	Misc. retail groceries.....	12 97
541.	Central Union Telephone Company.	Telephone rental	12 50
542.	West Disinfecting Company.....	Disinfectants	6 44
543.	Pittsford Purity Pie Company....	Pies	5 52
544.	Wm. B. Burford.....	Paper	5 50
545.	Booth Fisheries Company.....	Fish	4 55
546.	The Indianapolis Star.....	Newspapers	3 90
547.	Dawson-Pinto Company	Fruits	3 88
548.	The Indianapolis News.....	Newspapers	2 70
549.	H. Glick and Company.....	Melons	2 00
550.	Standard Oil Company.....	Cylinder oil	1 60
551.	The R. W. Furnas Ice Cream Co..	Ice cream	1 25
552.	George J. Mayer.....	Stencils	1 20
Total bills allowed September 25, 1911.....			\$2,640 34

EXHIBIT No. 8.

A Schedule of All Orders Drawn on the Treasurer of the Institution by Board of Trustees Thereof, and Paid by said Treasurer, Account Industries, During Fiscal Year Ending September 30, 1911. Original Vouchers in Itemized Form, Subscribed and Sworn to by Claimants, on File in Office of Auditor of State. Duplicates on File in Office of Institution.

November 10, 1910.

1.	R. O. Johnson, Superintendent...	Payroll, October, 1910.....	\$246 66
2.	R. O. Johnson, Superintendent...	Miscellaneous expenses	1 50
3.	Taylor Belting Company.....	Shoe shop supplies.....	200 90
4.	Indiana Paper Company.....	Printing office supplies.....	51 34
5.	Hoover-Watson Printing Company..	Half-tones	3 50
Total bills allowed November 10, 1910.			\$503 90

EXHIBIT No. 8—Continued.

December 8, 1910.

6.	R. O. Johnson, Superintendent....	Payroll, November, 1910.....	\$246 66
7.	R. O. Johnson, Superintendent....	Miscellaneous expenses	1 74
8.	Indiana Paper Company.....	Paper	157 27
9.	Lilly and Stalnaker.....	Cabinet shop supplies.....	12 47
10.	The William Laurie Company....	Darning cotton	1 44

Total bills allowed December 8, 1910..... \$419 58

January 12, 1911.

11.	R. O. Johnson, Superintendent....	Payroll, December, 1910....	\$246 66
12.	R. O. Johnson, Superintendent....	Miscellaneous expenses	3 17
13.	Pettis Dry Goods Company.....	Thread	9 40
14.	American Type Founders Company.	Printing office supplies.....	7 15
15.	Lilly and Stalnaker.....	Cabinet shop supplies.....	4 70
16.	Hibben-Hollweg and Company....	Sewing room supplies.....	2 00
17.	Hoover-Watson Printing Company.	Half-tone	1 63
18.	C. P. Lesh Paper Company.....	Ink	1 50
19.	Home Stove Company.....	Stove grate	1 40
20.	Samuel Bingham's Son Mfg. Co....	Printing office supplies.....	1 25
21.	Standard Oil Company.....	Gasoline	53

Total bills allowed January 12, 1911..... \$279 39

February 8, 1911.

22.	R. O. Johnson, Superintendent....	Payroll, January, 1911.....	\$246 66
23.	R. O. Johnson, Superintendent....	Miscellaneous expenses	4 05
24.	Taylor Belting Company.....	Shoe shop supplies.....	46 00
25.	Indianapolis Paint and Color Co..	Cabinet shop supplies.....	18 80
26.	Vonnegut Hardware Company.....	Cabinet shop supplies	9 37
27.	Hibben-Hollweg and Company.....	Sewing room supplies.....	5 10
28.	Hoover-Watson Printing Company.	Printing office supplies.....	2 78
29.	Charles G. Grah.....	Barber shop repairs.....	2 00
30.	Pettis Dry Goods Company.....	Needles	1 35

Total bills allowed February 8, 1911..... \$336 11

March 15, 1911.

31.	R. O. Johnson, Superintendent....	Payroll, February, 1911.....	\$246 66
32.	R. O. Johnson, Superintendent....	Miscellaneous expenses	3 47
33.	Taylor Belting Company.....	Shoe shop supplies.....	35 18
34.	L. S. Ayres & Company.....	Sewing room supplies.....	3 90
35.	C. P. Lesh Paper Company.....	Ink, etc.	1 77

Total bills allowed March 15, 1911..... \$290 98

April 6, 1911.

36.	R. O. Johnson, Superintendent....	Payroll, March, 1911.....	\$246 66
37.	R. O. Johnson, Superintendent....	Miscellaneous expenses	3 83
38.	Vonnegut Hardware Company.....	Cabinet shop supplies.....	19 52
39.	Indianapolis Paint and Color Co..	Paints	10 55
40.	Hoover-Watson Printing Company.	Half-tone	1 25
41.	C. P. Lesh Paper Company.....	Ink	1 00

Total bills allowed April 6, 1911..... \$282 81

EXHIBIT No. 8—Continued.

May 9, 1911.

42.	R. O. Johnson, Superintendent....	Payroll, April, 1911.....	\$246 66
43.	R. O. Johnson, Superintendent....	Miscellaneous expenses	6 34
44.	Hide, Leather & Belting Company....	Shoe shop supplies.....	60 30
45.	Vonnegut Hardware Company.....	Cabinet shop supplies.....	17 51
46.	Indianapolis Paint and Color Co....	Paints	4 99
Total bills allowed May 9, 1911.....			\$335 74

June 16, 1911.

47.	R. O. Johnson, Superintendent....	Payroll, May, 1911.	\$246 66
48.	R. O. Johnson, Superintendent....	Miscellaneous expenses	4 64
49.	Sargent Paint and Color Company....	Varnish, etc.	16 65
50.	Hoover-Watson Printing Company....	Half-tones	8 74
51.	Schloss Brothers	Uniform buttons	8 00
52.	Vonnegut Hardware Company....	Cabinet shop supplies.....	1 60
53.	C. P. Lesh Paper Company.....	Ink	83
Total bills allowed June 16, 1911.....			\$286 52

July 17, 1911.

54.	R. O. Johnson, Superintendent....	Payroll, June, 1911.....	\$201 66
55.	R. O. Johnson, Superintendent....	Miscellaneous expenses	1 00
56.	Indianapolis Paint and Color Co....	Paints	12 05
57.	C. P. Lesh Paper Company.....	Ink, etc.	3 83
58.	Hoover-Watson Printing Company....	Photographs	3 00
Total bills allowed July 17, 1911			\$221 54

August 10, 1911.

59.	R. O. Johnson, Superintendent....	Payroll, July, 1911.....	\$135 00
60.	Emanuel Collins	Whitewashing at new institution	59 00
Total bills allowed August 10, 1911			\$194 00

September 7, 1911.

61.	R. O. Johnson, Superintendent....	Payroll, August, 1911.....	\$180 00
62.	Maas-Niemeyer Lumber Company....	Lumber	57 30
63.	Hogan-Shank Transfer Company....	Transfer	21 90
64.	Lilly and Stalnaker	Hardware	18 70
65.	Samuel Bingham's Son Mfg. Co....	Repairing printing press rollers	3 40
Total bills allowed September 7, 1911			\$281 30

September 25, 1911.

66.	R. O. Johnson, Superintendent....	Payroll, September, 1911.	\$180 00
67.	R. O. Johnson, Superintendent....	Miscellaneous expenses	20 16
68.	Sanborn-Marsh Electric Company....	Electrical supplies	652 70
69.	Champion Shoe Machinery Co....	Shoe shop supplies.....	411 45
70.	Woolen and Callon.....	Plumbing	60 00
71.	Many and Mayer.....	Taking down and setting up cylinder press	22 15
72.	Samuel Bingham's Son Mfg. Co....	Printing press repairs.....	16 25
73.	Vonnegut Machinery Company....	Printing office supplies.....	15 05
74.	The Sinker-Davis Company.....	Cabinet shop repairs.....	15 00
75.	C. P. Lesh Paper Company.....	Paper, etc.	2 71
76.	Vonnegut Hardware Company.....	Printing office supplies	1 53
Total bills allowed September 25, 1911			\$1,397 00

EXHIBIT No. 9.

A Recapitulation of Clothing Accounts, Showing the Amounts Charged to Counties for Clothing and Other Expenses for the Pupils. Paid for from Maintenance Fund for the Fiscal Year Ending September 30, 1911. Accounts for Collection Have Been Filed with the Treasurer of State.

Adams	\$26 14
Bartholomew	1 99
Blackford	15 48
Clark	33 16
Clay	39 31
Clinton	38 04
Daviess	53
Dearborn	5 63
Delaware	28 76
Dubois	26 78
Elkhart	5 52
Floyd	3 02
Fountain	7 49
Gibson	11 84
Greene	16 00
Hamilton	5 57
Harrison	11 94
Howard	37 22
Huntington	31 53
Jefferson	15 74
Johnson	17 89
Knox	55 08
Lake	47 87
Madison	9 90
Marion	66 94
Monroe	20 78
Orange	30
Owen	23 84
Pike	38 82
St. Joseph	7 80
Starke	31 19
Tippecanoe	35 49
Vanderburgh	43 34
Vigo	3 04
Warrick	9 00
White	6 29
Total	<hr/> \$780 86

EXHIBIT No. 10.

A Recapitulation of Inventory of All Real and Personal Property Belong
ing to the Indiana State School for the Deaf, on
September 30, 1911.*

Art department	\$170 03
Bakeshop	66 13
Bedrooms and halls	1,484 00
Boiler house	1,616 68
Cabinet shop	912 21
Cooking class-room	109 46
Dining-room	863 28
Dormitories	2,185 08
Electric light plant	1,874 08
Farm and garden products
Greenhouses	256 02
Gymnasium
Infirmery	455 61
Kitchens	340 57
Laundry	682 39
Lavatories, bath rooms and water closets.....	936 66
Library	2,643 30
Live stock	590 14
Offices	378 63
Printing-office	1,294 72
Real estate	825 00
Reception room and main hall.....	212 46
Repair shops	223 19
School department	1,382 81
Sewing-room	65 98
Shoe and harness shop.....	253 82
Stables	266 45
Steam heating apparatus	1,650 00
Storeroom	804 62
Tinshop	201 40
Toolhouse	92 78
Miscellaneous	273 15
Credit fund	1 00
Total	\$23,111 68

* Concerning new school inventory see second paragraph, page 11

Thirty-Third Annual Report

OF THE

Indiana School for Feeble-Minded Youth

FORT WAYNE, INDIANA

For the Fiscal Year Ending
September 30, 1911

To the Governor

INDIANAPOLIS :

WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING
1912

THE STATE OF INDIANA,
EXECUTIVE DEPARTMENT,
FEBRUARY 20, 1912.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,
INDIANAPOLIS, February 24, 1912.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,
Auditor of State.

MARCH 5, 1912.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,
Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, March 5, 1912.

L. G. ELLINGHAM,
Secretary of State.

Received the within report and delivered to the printer, March 5, 1912.

ED D. DONNELL,
Clerk Printing Board.

BOARD OF TRUSTEES.

REV. ANTHONY M. ELLERING, President, Michigan City.
GEORGE D. GABY, Vice-President, Albion.
JAMES W. SALE, Treasurer, Bluffton.
MRS. MARY R. HARPER, Secretary, Fort Wayne.

OFFICERS.

ALBERT E. CARROLL, Superintendent.
MRS. A. M. WHEATON, Matron.

MEDICAL DEPARTMENT.

CHARLES G. BEALL, M. D., Chief Consultant.
THOMAS L. TAYLOR, M. D., Resident Physician.
NELLIE HANAWAY, M. D., Assistant Physician.

MEDICAL CONSULTING STAFF.

Surgery.

MILES F. PORTER, A. M., M. D.

Internal Medicine.

B. VAN SWERINGEN, M. D.

Ear, Eye, Nose and Throat.

KENT K. WHEELOCK, M. D.

ACCOUNTING DEPARTMENT.

MELVIN DRUCKEMILLER, Chief Clerk.
LEONE P. MARSH, Superintendent's Secretary.
JESSIE LINDSEY, Stenographer and Bookkeeper.
CAREY WEATHERHOLT, Night Clerk.
MARGARET TOWNSEND, Record Clerk.
FRANK ANGLIN, Storekeeper.

SCHOOL DEPARTMENT.

FRANCES HAMILTON, Principal.
GRACE THOMPSON, Grammar Grade and Library.
MRS. ALICE SUMMERBELL, Receiving School.
MARJORIE SMITH, Kindergarten.
GRACE M. LEONARD, Kindergarten and Primary.
MRS. MARTHA KIMBLE, Primary.
ELIZABETH E. MCOWAN, Primary.

FRANKIE JONES, Primary and Intermediate.
 GERTRUDE HARLOWE, Primary and Intermediate.
 MARIE WINTERMOTE, Art and Grammar-Grade.
 ADA JANE BANKS, Art Needle Work.
 MARIE E. EMGE, Carpentry, Sloyd and Clay Modeling.
 PEARL M. BALDWIN, General Manual.
 INA MATTHEWS, Physical Training.
 MAUD WINN, Voice and Piano.
 F. J. REINEKE, Girls' Orchestra.
 G. J. THOMPSON, Boys' Band.

HEADS OF DEPARTMENTS.

WILLIAM J. SMITH, Supervisor Colony Farm.
 HARRY THOMPSON, Supervisor East Wing Boys' Ward.
 ALICE WILSON, Supervisoress Custodial Cottage for Boys.
 DALE COWDERY, Supervisoress West Wing Girls' Ward.
 ELLA McCORMICK, Supervisoress Custodial Cottage for Girls.
 BELLA MAC TAVASH, Supervisoress Cottage for Adult Females.
 LEW DEHAVEN, Chief Engineer.
 FRED L. TILBURY, Woodworking.
 SETH A. ROBERTS, Painting.
 HENRY MEURER, Mattress Making.
 FRED KOENIG, Tailoring.
 N. B. HOLDSWORTH, Shoemaking.
 ANDREW HEINZLEMAN, Bakery.
 C. N. ROBERTSON, Cold Storage.
 JOHN DICKSON, Farm and Dairy.
 MORRIS PULLIN, Gardener.
 FLOYD J. WILKEN, Florist.
 M. Q. CAMPBELL, Outside Overseer.
 KATE GORMLEY, Laundry.
 ROSE MURPHY, Dressmaking.
 MINNIE FRANKS, Mending and Comfort.
 MRS. W. J. SMITH, Sewing Room Colony Farm.
 ANNA BROWN, Sewing Room Custodial Cottage for Girls.
 AUGUSTA HOPKINS, Sewing Room Cottage for Adult Females.

REPORT OF BOARD OF TRUSTEES.

TO THE HONORABLE THOMAS R. MARSHALL, *Governor of Indiana*:

Sir—The Board of Trustees of the Indiana School for Feeble-Minded Youth has the honor to submit this, its thirty-third annual, report for the fiscal year ending September 30, 1911, together with a showing of the year's work as reported by the Superintendent, accompanied by various statistical exhibits, showing in detail the operations of the institution for the past year, to which your attention is respectfully called.

On May 6th, the terms of office of Albert P. Sinclair and James W. Sale having expired by limitation, you appointed Mr. George D. Gaby of Albion to succeed Mr. Sinclair, and reappointed Mr. Sale to succeed himself, each for a term of four years from May 6, 1911, and on May 9th the new Board of Trustees met and organized by the selection of the following officers, to wit:

Rev. Anthony M. Ellering, President.

George D. Gaby, Vice-President.

Mrs. Mary R. Harper, Secretary.

James W. Sale, Treasurer.

The year has passed with perfect harmony and unanimity of action between the members of the board, and co-operation on the part of our worthy superintendent has prevailed throughout the year.

Mr. Albert E. Carroll, who for eighteen years has been closely identified with the executive management of the institution, and who for the past eight years has so successfully managed its affairs, continues as superintendent. His usefulness grows with his years of experience, and his marked ability in choosing loyal and enthusiastic heads of the several departments, maintains a high standard of efficiency and co-operation throughout, that is very commendable.

The population of the institution has gained materially during the year, the completion of the Adult Female Cottage having permitted us to receive a number of women who had been on the waiting list. The present enrollment is 1,225 against 1,143 one year ago, showing a gain of 82 for the fiscal year.

We now have 61 applications accepted, pending room, as against 131 a year ago, the majority of these being for girls under 16 years of age. The department for girls is overcrowded at this time, and we shall only be able to accept girls of school age as vacancies occur by reason of death or removal, until such time as additional facilities are furnished by the State. We will be able to care for all proper applications for boys and adult females that are presented during the coming year.

The operation of the various departments during the year has been very satisfactory. The school under the direction of the principal, Miss Frances Hamilton, has done very satisfactory work.

The Industrial Department has fully supplied the children with clothing, shoes and breadstuffs, and contributed largely to the subsistence from the gardens.

The result of the farming operations is particularly notable, the net profit from the farm being \$4,315.08 for the year, a gain of \$1,002.51 over 1910; while the estimated value of farm and garden products amounts to \$17,260.31. This department is growing in value to the institution each year from a financial standpoint, and at the same time affords a splendid opportunity to keep the able-bodied boys engaged in healthful employment.

The 67th General Assembly made some needed changes in the law governing the admission of inmates, relieving the institution of the care of epileptic children, and providing for a maintenance fee for adult females when able to pay, which has proven advantageous. We have already found a number of cases where inmates have had estates of more or less importance; others where parents were able to contribute wholly or in part to the support of their children, and tuition has been assessed amounting to approximately \$2,500 per annum, with a number of cases yet to be investigated.

The maintenance expenditure per capita for the past year was \$130 (exclusive of repairs) while our tuition and industrial earnings deposited with the State Treasurer amounted to \$5,149.31. Deducting this amount from the total maintenance expense, leaves a net cost per capita of \$125.52, or sixty cents per capita less than 1910.

Of the funds provided for improvements by specific appropriation enacted by the Legislature of 1909, only one remained unexpended at the beginning of the fiscal year, viz., that for a cottage for adult females. This building was fully completed and furnished, ready for occupancy July 1, 1911, within the appropriation of \$60,000. The building is satisfactory in every respect, and

will provide all needed accommodations for the adult female department for some time to come.

The General Assembly of 1911 made the following specific appropriations for the institution: \$24,000 for two one hundred and fifty tubular H. P. boilers, two one hundred and fifty K. W. direct connected dynamos and engines, water softening plant, and reservoir for water supply.

Competitive bids were submitted for the various items named in the appropriations, when it was found that the estimated cost of the water reservoir, upon which the appropriation was based, had been too small, whereupon the board decided to defer the building of the reservoir until some future time, and as a consequence about \$6,500 of this appropriation will revert to the State October 1, 1912. Contracts were let for the remainder of the items in this appropriation, and all the work will be completed about January 1, 1912.

Other specific appropriations made were: Dairy barn, \$5,000; iron fence, \$2,300; brick yard expense and construction of hospital for the sick, \$60,000.

These appropriations will not be available until October 1, 1912.

A complete statement of the regular and specific appropriations made by the General Assembly available during the year, and receipts from tuition and earnings, is as follows:

Maintenance.

Regular appropriation	\$130,000 00	
Excess on 147.925 inmates over 1,000.....	19,229 45	
Expenditures as per Exhibit No. 2.....		\$149,226 90
Reverted to State Treasurer.....		2 55

Repairs and Painting.

Regular appropriation	\$7,500 00	
Expenditures as per Exhibit No. 3.....		\$7,499 87
Reverted to State Treasurer.....		13

Cottage for Adult Females.

Appropriation	\$60,000 00	
Expended in fiscal year ending September 30, 1910	19,286 58	
Balance for fiscal year ending September 30, 1911	\$40,713 42	
Expenditures as per Exhibit No. 4.....		\$40,711 46
Reverted to State Treasurer.....		1 96

Tuition Receipts and Industrial Proceeds and Earnings.

Receipts from tuition accounts.....	\$4,673 73	
Industrial proceeds and earnings.....	475 58	
Deposited with State.....		\$5,149 31

Respectfully submitted,

ANTHONY M. ELLERING,
 GEO. D. GABY,
 MARY R. HARPER,
 JAMES W. SALE,
 Trustees.

REPORT OF SUPERINTENDENT.

To the Board of Trustees:

I have the honor to submit herewith the Thirty-third Annual Report of the Indiana School for Feeble-Minded Youth, for the fiscal year ending September 30, 1911:

MOVEMENT OF POPULATION.

	Boys.	Girls.	Adult Females.	Total.
Enrolled September 30, 1910.....	517	473	153	1143
Admitted during the fiscal year.....	58	28	58	144
Total enrollment	575	501	211	1287
Died during fiscal year.....	14	13	5	32
Discharged during fiscal year.....	7	6	1	14
Withdrawn during fiscal year.....	9	7	0	16
Total died, discharged and withdrawn	30	26	6	62
Enrolled September 30, 1911.....	545	475	205	1225
Absent September 30, 1911.....	20	6	0	26
Actual number present Sept. 30, 1911	525	469	205	1199
	Males.	Females.	Total.	
Daily average actually present	516.931	630.994	1147.925	
	Boys.	Girls.	Adult Females.	Total.
Applications presented	87	35	30	152
Applications accepted	76	31	30	137
Applications rejected and deferred.....	11	4	0	15
Applications on file pending room.....	20	33	8	61

The number of cases admitted during the fiscal year was boys 58, girls 28, adult females 58, or a total of 144. The loss by death, withdrawal and discharge was, boys 30, girls 26, adult females 6, or a total of 62, leaving a net gain in our enrollment for the year of 82 inmates. The number of applications and commitments presented was, boys 87, girls 35, adult females 30, total 152. The applications of 11 boys and 4 girls were rejected because of epilepsy and their otherwise helpless condition.

The new building for women of child-bearing age was completed and occupied early in the month of July. Acceptance was issued for all committed cases on the waiting list and most of them are now under the protecting care of the State. There yet remains in the adult department, available room for about 75 cases; if proper care is exercised and only those who belong here under the law are sent to use, we should be able to promptly care for all committed cases for a number of years without further extensions. It seems impossible to prevent the commitment of improper cases to this department; the law governing the class of defectives eligible is very plain, and the rules prepared by the Board of Trustees regulating admissions is even more plain. Notwithstanding this, a large number of women sent to us each year are such cases as should be cared for by some other institution, either State or county.

All of the cottages and other buildings (except the cottage for women) are caring for as large a number of inmates as is safe and wise to house within the space they afford.

DISTRIBUTION OF POPULATION.

	Enrolled.	Beds.
Main building—girls	291	286
Main building—boys	218	224
Custodial Cottage for boys.....	163	159
Cottage, Colony Farm—boys.....	164	154
Cottage for Adult Females	205	275
Custodial Cottage for Girls.....	184	190
	<hr/> 1,225	<hr/> 1,288

The change in our law enacted by the last General Assembly, providing for the support of committed cases by parents when such parents are financially able to contribute to such support, or from the estates of such committed cases themselves, should there be any, will add from \$2,500 to \$3,000 per annum to our earnings account.

Three unfortunate accidents occurred during the year, the first being that of the case of Frank Parker, inmate No. 1976, who was reported as having strayed from Colony Farm on January 13, 1911, and whose body was found in the St. Joseph River directly back of the Colony Farm buildings on Friday, March 10, 1911, at about 9 o'clock a. m. The finding was reported by two men who were going up the river in a boat. They reported their discovery to Mr.

Smith at Colony Farm, who went to the river at once and made an examination of the body and found it to be that of the boy as stated above. The coroner was called and after holding an inquest, returned the verdict of accidental drowning.

At the time this boy strayed the river was covered with ice, but it had become soft and broken up in places. It is my opinion that in leaving the institution premises, the boy attempted crossing the river and broke through the ice, and was unable to save himself. At the time of his disappearance the premises were thoroughly searched. The searchers found tracks, supposedly those of the Parker boy, through the camp woods and up towards the Oaklawn woods, but there all trace was lost and nothing further was heard of his whereabouts until the finding of the body on March 10, 1911. After the coroner's inquest, the remains were buried in the institution cemetery on March 11th.

The other was the accidental drowning in the St. Joseph River of inmates Otto Lehman and Wesley Hoppes while in swimming with about twenty other boys, May 27, 1911. A report of the accident was sent to the secretary of the Board of State Charities as follows:

"I have to report the death of two of our boys by accidental drowning on May 27, 1911, at or about 5:30 o'clock p. m. Inmates No. 1077, Otto Lehman; No. 2126, Wesley Hoppes, and about thirty other boys, under the direction of two attendants, were picnicking along the river at Colony Farm. Shortly after supper the two boys mentioned above and about twenty of their companions, together with their attendants, went in swimming. The boys had been cautioned not to venture into any water that had not first been explored by the attendants. While the attendants were sounding for deep water, the two boys came splashing past them and were in deep water before they could be reached. The attendants made every effort to reach and rescue the boys, but were unable to do so. The coroner was called, and after viewing the bodies and examining witnesses, rendered a verdict of accidental drowning as the cause of death.

"I was at the scene of the accident a very few minutes after it happened and from my own investigations am satisfied the attendants did everything in their power to safeguard the boys while in swimming, and that they made every effort to rescue the boys when they found them in trouble.

"The boys at the farm and the children from the institution picnicking at the camp grounds have used the river at or near this particular point for the past several years and it has always been considered safe. However, the boys have never been permitted to use the river for swimming unless accompanied by one or more attendants or employees."

SCHOOL DEPARTMENT.

The number of children attending school remains about the same each year. Our teaching staff is composed of women who are earnest, conscientious and thoroughly alive to the great responsibility devolving upon them, in the training and instruction, not only of those who form their daily classes, but of all those who are a part of our home. The Children's Library is fast becoming one of the most potent factors for good the institution has ever known. A few volumes are added each year; we could use many more, but because of a lack of funds for this purpose our library must of necessity grow slowly.

Miss Frances Hamilton, for several years connected with the public schools of Fort Wayne, was appointed principal of our schools on January 1, 1911.

Your attention is respectfully directed to the report of the principal for further information covering the operations of the school department.

MEDICAL DEPARTMENT.

The general health of the children has been good. The report of our resident physician furnishes a history of the hospital department for the past year, to which report your attention is respectfully directed.

Dr. T. L. Taylor of Indianapolis entered the service as resident physician on January 1, 1911. Dr. Charles G. Beall, who had been acting physician in charge during the absence of a resident physician, was made chief consultant of the medical staff. Dr. Nellie Hanaway, serving as medical interne, was promoted to assistant physician July 1, 1911.

INDUSTRIES.

All of the industries, with the exception of the brickyard, have contributed to the employment and training of the children as in years past, and the work accomplished by the various departments has done much to lessen the cost of our institution to the State. A summary of the work and product of the various departments is appended hereto and will give some idea of their usefulness and helpfulness.

RELIGIOUS SERVICES

Chapel service is held each Sabbath in the main chapel hall and all of the cottages. The services are planned to meet the needs of the various grades and degrees of intellect.

RECREATION AND AMUSEMENT.

All of the holidays and special days are celebrated with appropriate ceremonies. The weekly dances and entertainments have been kept up. We are adding to the playground equipment each year and leaving nothing undone that would add to healthful and helpful amusement.

MAINTENANCE.

The maintenance appropriation for the past fiscal year was \$130,000, based upon an actual attendance of 1,000 inmates, with an excess allowance of \$130 per capita per annum for each inmate actually present over that number. The excess maintenance for the fiscal year was \$19,229.43, making our total maintenance allowance for the year \$149,229.43. The expenditures for all purposes, excluding repairs and improvements, were \$149,226.90.

The maintenance appropriation for the next biennial period is \$145,990 per annum, for 1,123 inmates, with an excess allowance of \$130 for all actually present over that number.

GENERAL REPAIRS.

All urgent repairs are being kept up; the buildings and equipment are getting old and the demand for repairs grow greater each year. Several of the floors and much of the plumbing will have to be replaced the coming year.

SPECIFIC APPROPRIATIONS.

The cottage for adult females was the only specific appropriation available the past year. This improvement was completed and occupied July 1st. The arrangement and construction of this building is one of the most satisfactory improvements on the grounds.

OTHER APPROPRIATIONS.

The last General Assembly appropriated funds for buildings and equipment, available as follows:

Boilers, engines, etc. (available October 1, 1911)	\$24,000
Hospital building	60,000
Dairy barn	5,000
Iron fence (available October 1, 1912)	2,300

The appropriation for boilers, engines, etc., included two 150 k. w. direct connected dynamos and engines, two 150 horsepower high pressure boilers, one water softening plant and reservoir for water supply. There being urgent need for the engines, dynamos, boilers and water softening plant, contracts were awarded and work begun on same before the close of the fiscal year and we hope to have all in full operation before winter sets in. The other appropriations not being available until a year from this time, very little can be done, except the securing of plans. Arrangements should be made, however, for the manufacture of brick for the hospital and dairy barn so as to prevent delay when these funds are available for use.

SPECIAL MENTION.

Miss Nora Griffin, who had been connected with the institution in various capacities for twenty-three years and serving as matron the past five years, resigned on May 31, 1911, to live at home. Miss Griffin was a conscientious and loyal officer and possessed many qualities fitting her for the duties of the office she creditably filled.

Mrs. A. M. Wheaton was appointed matron to succeed Miss Griffin and assumed the duties of the office June 1, 1911.

IN CONCLUSION.

It is a pleasure to again mention the loyalty and helpfulness of all those who are laboring with me in this great cause; each employe, regardless of rank, is equally entitled to credit for whatever of success we have achieved.

I desire to thank your honorable board for the deep interest manifested in the affairs of the institution, and for your confidence and co-operation at all times.

Respectfully submitted,

ALBERT E. CARROLL,
Superintendent.

SEPTEMBER 30, 1911.

REPORT OF SCHOOL PRINCIPAL.

To the Superintendent:

The majority of mentally deficient children will spend their lives under custodial care or at best fill the humblest positions in the world. Their education should be to this end and the teacher can accomplish most when teaching them as individuals, not as classes.

In reaching the minds of our defective children our first difficulty lies in finding out how little they comprehend and through which one of their senses they can be helped. If the eye, the forms of objects and of words are shown and named. Words are called pictures with names, the same picture always having the same name. If the ear, the sounds of letters and building of words may reach them. If by touch, objects may be handled as they say the word, or see it written, but objects must be discarded as soon as possible.

An interest must be created in the child and the teacher be ready with devices, and all work must be given in a forceful way.

In our trial class, an experienced teacher tests the child to learn how he can be best reached and in what grade he will be best able to progress.

The child who stammers or whose articulation is indistinct, remains in the trial class for special training. The kindergarten work has been especially helpful to these defective children and has been given to some extent to all primary pupils and is a source of great pleasure as well as a means of instruction.

A well-equipped gymnasium has added to the health and happiness of all the school children, and a well-selected library is freely used by a large number of boys and girls. The smaller children, also some of the duller children, gather in the reading room for the "story period," a period that creates in many a desire to read. This work has been done under the direction of a teacher unusually well adapted for her duty.

We need more books, not only for the library, but for supplementary reading in the schoolrooms.

The nature study in our schools is planned to create interest in the common trees, birds, weeds, fruits and flowers about us, never

technical, but concrete and objective. From the most common wayside flower the pupil will learn, unknowingly, lessons of generosity, obedience and protection.

The work is adapted to season and made practical to writing, drawing, reading and number work.

Especially well done is the work of the art class, and while it has given skill to a few, it has given pleasure to many and added greatly to schoolrooms already homelike with sunshine and plants and flowers.

Music receives great attention, and voice culture, piano, orchestra and band lend their refining influence to all. The manual training work has given a measure of skill to many hands.

If the year's work has given happiness to the children and will aid them in their simple duties through life, there has much been attained.

Respectfully submitted,

FRANCES HAMILTON,
Principal.

SCHOOL ENROLLMENT.

Morning.

<i>Classes.</i>	<i>Enrollment.</i>
1. Boys' kindergarten	22
2. Boys' 1st primary	20
3. Boys' 1st-2d primary	18
4. Boys' 3d-4th grade	16
5. Boys' 4th-6th grade	17
6. Girls' kindergarten—primary	26
7. Girls' 1st primary	22
8. Girls' 1st-3d primary	20
Total	161

Afternoon.

9. Boys' kindergarten	10
10. Boys' kindergarten—primary	20
11. Boys' 1st-2d primary	14
12. Boys' 3d-5th grade	15
13. Girls' 1st-2d primary	20
14. Girls' 1st-3d primary	14
15. Girls' 3d-4th primary	15
16. Girls' 4th-7th primary	15
Total	123

Manual, Music and Physical Training.

<i>Classes.</i>	<i>Enrollment.</i>
17. Girls' fancy needle work	32
18. Adult female department, needle work	34
19. Adult female department, physical training	50
20. Custodial cottage for girls, physical training.....	22
21. Piano	12
22. Orchestra	7
23. Band	20
24. Boys' mechanical drawing	15
25. Boys' sloyd	21
26. Boys' bench	18
27. Girls' clay modeling	9
Total	240

REPORT OF RESIDENT PHYSICIAN.

To the Superintendent:

I submit herewith the report of the medical department of the Indiana School for Feeble-Minded Youth, for the fiscal year ending September 30, 1911:

The general health of the children has been good, and with few exceptions their physical condition is above the average for children maintained in similar institutions. We have had two epidemics, the first and most severe being that of diphtheria. There were twenty severe cases, with only one death, and this one was complicated with pneumonia. The manner of treating individual cases and preventive measures used to stop the spread of the epidemic, were as follows: A suspect from any division was isolated immediately; a swab taken from tonsils and examined under the microscope; at the same time a culture was grown. If clinical symptoms were at all characteristic of diphtheria, a dose of antitoxin was given at once. If the culture proved positive and the clinical symptoms continued, we had a better control of the case. If the culture and clinical symptoms were negative, the antitoxin had done no harm to the patient. The size of dose of antitoxin was given according to age of patient, and severity of clinical symptoms.

Preventive Measures.—The division from which the suspect came was quarantined for ten days, and if the case proved positive, each child in the division was given an immunizing dose of antitoxin. At the end of the ten days, if there were no symptoms of infection, the quarantine was raised. None of the children given immunizing doses had diphtheria.

The second was an epidemic of pneumonia. There were eight cases among the low-grade boys, with only one death, and this case was complicated with pulmonary tuberculosis. All the children have been inoculated with typhoid vaccine. We have had four cases of typhoid fever. Two cases occurred before the inoculations, and two after. There were no deaths. All children received into the institution are inoculated immediately upon admittance. The manner of administering the typhoid vaccine was as follows: Two inoculations were given each inmate, ten days elapsing between first and second inoculations. For individuals of average weight of 150 pounds, we gave for first dose, $\frac{1}{2}$ c. c. of vaccine, which contained 500,000,000 dead bacteria. The second dose was 1 c. c. and

contained 1,000,000,000 dead bacteria. To the smaller children, we gave to some, $\frac{1}{3}$ c. c. for first dose, and $\frac{2}{3}$ c. c. for second dose. To others, $\frac{1}{4}$ c. c. for first dose, and $2\frac{1}{4}$ or $\frac{1}{2}$ c. c. for second dose, according to weight of individual. Strict aseptic precautions were observed during entire procedure. The place of inoculation was the middle of outer side of arm. A small spot was cleansed with soap and water, a new needle which had been placed in boiling water, was used for each injection of vaccine. There were about 1,200 cases, making about 2,400 inoculations, with no infection of the arms. There was a slight local reaction in each case, but no systemic disturbance of any consequence. The typhoid vaccine used was furnished gratis by Parke, Davis & Co. All the children are to be kept under observation for two years and reports made from time to time.

During the year there were 980 admittances to the hospital. Of that number, 526 were girls, and 454 boys. We treated 5,802 dispensary cases, of that number 3,731 were girls, and 2,071 boys, making a total of 6,782 cases treated at the hospital.

Dr. Earl Robbins was appointed dental surgeon, and his work was very satisfactory. Dr. Robbins was with us only two months, and in that time could not do all the work that should have been done.

We are indebted to Dr. Joseph F. Morrow, and Dr. C. Langdon of Indianapolis, for the "Wasserman" test made on 86 of the children. These tests showed syphilitic reaction in 37 per cent. of the cases. Many other children are undoubtedly syphilitic. A great many from history of cases show an alcoholic heredity. A small per cent. of feeble-mindedness is caused by sickness, but the large majority of cases are caused by heredity and dissipation.

We have done all in our power to keep the children in a state of good health, thereby adding something to their happiness, but should we not look back to the cause of such conditions and try in some way to remedy this one great defect in the human race, and in our commonwealth!

Below is a list of the more important medical and surgical cases treated, together with the mortality record.

In behalf of myself and those connected with the hospital, I wish to thank you for the hearty co-operation and confidence you have given us.

Respectfully submitted,

T. L. TAYLOR,
Resident Physician.

SURGICAL CASES.

Pelvic abscess	1
Sprained knee	1
Thyroid cyst	1
Infected hand	2
Inguinal cyst	1
Hematoma of elbow	1
Tonsillectomy	22
Lacerated lip	1
Fracture of clavicle	1
Appendectomy	2
Colle's fracture	1
Herniotomy	3
Fracture of ulnar	1
Fracture of lower jaw	1
Fracture of metacarpal bone	3
Sprained ankle	9
Sprained hip	3
Ingrown toe nails	2

MEDICAL CASES TREATED.

Follicular tonsilitis	31
Iritis	9
Torticollis	1
Tonsil abscess	11
Catarrhal tonsilitis	22
Epilepsy	27
Diphtheria	27
Pulmonary tuberculosis	10
Varicella	5
Lobar pneumonia	21
Broncho pneumonia	2
Acute articular rheumatism.....	4
Infected scalp	2
Prolapsed rectum	3
Furunculosis	1
Acute indigestion	5
Vincent's angina	1
Mitral regurgitation (broken compensation).....	1
Vaginitis	1
Ulcerative keratitis	7
Erysipelas	3
Typhoid fever	4
Muscular rheumatism	1
Diabetes mellitus	1
Dementia præcox	1
Indolent ulcer	1
Catalepsy	1
Parotitis	10

Measles	3
Scabies	3
Tubercular adenitis	2
Enterocolitis	8
Asthma	1
Chronic trachoma	1
Stomatitis (gangrenous)	2
Acute nephritis	1
Epileptic insanity	2
Urticaria	4
Blepharitis	1
Impetigo	1
Heat exhaustion	1

MORTALITY RECORD.

Number.	NAME.	Age.	Date of Death.	Cause of Death.	Grade of Child.
1	Minnie M. Strayer.....	45	Nov. 17, 1910	Status epilepticus.....	Low grade.
2	George Nice.....	32	Dec. 8, 1910	Erysipelas.....	Low grade.
3	Anna Wilk.....	21	Dec. 9, 1910	Pulmonary tuberculosis.....	Middle grade.
4	Harry Behagg.....	9	Dec. 11, 1910	Diphtheria laryngitis.....	Low grade.
5	Alvin Davis.....	23	Dec. 12, 1910	Hypostatic pneumonia.....	Low grade epileptic.
6	Margaret Stephenson.....	32	Dec. 12, 1910	Malnutrition—Tuberculosis.....	Middle grade.
7	Isabella Hock.....	11	Dec. 13, 1910	Organic heart disease.....	Middle grade.
8	Ella Volkman.....	13	Dec. 16, 1910	Pulmonary tuberculosis.....	Middle grade.
9	Clara K. Daiber.....	15	Dec. 29, 1910	Broncho pneumonia.....	Low grade.
10	Thomas R. Crist.....	12	Dec. 29, 1910	Laryngeal diphtheria.....	Low grade.
11	Pearl M. Preber.....	27	Dec. 31, 1910	Multilobular ovarian cyst.....	Low grade.
12	Frank Parker.....	20	Jan. 13, 1911	Drowned (accidental) in St. Joseph River.....	Middle Grade.
13	Rachel Moore.....	29	Feb. 10, 1911	Diabetis mellitus.....	Low grade.
14	Ralph McDaniel.....	29	Feb. 22, 1911	Status epilepticus.....	Low grade epileptic.
15	Laura Keesling.....	41	Mar. 7, 1911	Pellagra (—).....	Low grade.
16	Ora Ball.....	14	April 2, 1911	Status epilepticus.....	Middle grade epileptic.
17	Oliver Stutzman.....	37	April 28, 1911	Status epilepticus.....	Middle grade epileptic.
18	Warren Layne.....	16	May 25, 1911	Broncho pneumonia.....	Low grade.
19	Wesley Hoppes.....	18	May 27, 1911	Accidental drowning—in St. Joseph River.....	High grade.
20	Otto Lehman.....	22	May 27, 1911	Accidental drowning—in St. Joseph River.....	Middle grade.
21	Helen Connelly.....	16	May 30, 1911	Organic heart disease.....	High grade.
22	Alma Brosius.....	16	June 4, 1911	Broncho pneumonia.....	High grade.
23	Reed Warren.....	39	June 19, 1911	Fibroid phthisis asthma.....	Middle grade.
24	Viola Ahlering.....	22	July 7, 1911	Status lymphaticus.....	Low grade.
25	Nellie Murphy.....	21	July 11, 1911	Sunstroke.....	Low grade.
26	Anna Gwinup.....	48	July 30, 1911	Concussion of brain.....	Middle grade epileptic.
27	Burney Gray.....	8	Aug. 23, 1911	Tubercular enteritis.....	Low grade.
28	Bridget Hennigan.....	39	Sept. 4, 1911	Chronic tubercular meningitis.....	Low grade.
29	Chas. Beik.....	31	Sept. 4, 1911	Lobar pneumonia.....	Low grade.
30	Arthur Blocher.....	30	Sept. 10, 1911	Lobar pneumonia.....	Low grade.
31	Anna Fischer.....	20	Sept. 24, 1911	Status epilepticus.....	Low grade epileptic.
32	Castella Roe.....	41	Sept. 29, 1911	Status epilepticus.....	Middle grade epileptic.

TABLE No 1.

Admitted During the Year.

MONTHS.	Boys.	Girls.	Adult Females.	Total.
October, 1910.....	1	3	1	5
November, 1910.....	5	1	2	8
December, 1910.....	2	0	0	2
January, 1911.....	3	0	1	4
February, 1911.....	11	2	0	13
March, 1911.....	5	2	1	8
April, 1911.....	6	2	2	10
May, 1911.....	4	1	1	6
June, 1911.....	7	0	1	8
July, 1911.....	5	11	37	53
August, 1911.....	4	5	9	18
September, 1911.....	5	1	3	9
Total.....	58	28	58	144

Died.

Males	14
Females	13
Adult females	5
Total	32

Withdrawn.

Males	9
Females	7
Adult females	0
Total	16

Discharged.

Males	7
Females	6
Adult females	1
Total	14
Grand total	62

TABLE No. 2.

COUNTY REPRESENTATION.

Movement of Population, October 1, 1910, to September 30, 1911.

COUNTIES.	Quota.	Received.		Discharged.		Died.		Present at Close of Year.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Adams.....	11		3	1				3	11
Allen.....	37	2	5	2	1			26	29
Bartholomew.....	12		3		2			10	8
Benton.....	6							1	0
Blackford.....	8						2	5	8
Boone.....	13		2					4	5
Brown.....	5							2	3
Carroll.....	10	1				2		5	7
Cass.....	16		2				1	5	10
Clark.....	15		1		1			5	9
Clay.....	16							6	10
Clinton.....	13		1					6	6
Crawford.....	6							1	0
Daviess.....	14	1	1					3	2
Dearborn.....	11							3	0
Decatur.....	9	1	1	2				4	9
Dekalb.....	12		1	1				4	2
Delaware.....	24	1						15	12
Dubois.....	10							0	2
Elkhart.....	21	2	2		1	1		14	13
Fayette.....	6							0	1
Floyd.....	14							3	4
Fountain.....	10							4	12
Franklin.....	8						1	1	2
Fulton.....	8	1				1		2	2
Gibson.....	14	3	1					10	13
Grant.....	26		4	1		1		7	10
Greene.....	14							5	5
Hamilton.....	14		2		1	1	1	5	8
Hancock.....	9							4	6
Harrison.....	10	1						3	1
Hendricks.....	10							2	9
Henry.....	12	1	2					11	13
Howard.....	14	1						5	6
Huntington.....	14		3					4	14
Jackson.....	13		1					9	9
Jasper.....	7							1	3
Jay.....	13	1						6	6
Jefferson.....	11		1				1	4	9
Jennings.....	8	1	2					2	7
Johnson.....	10							4	6
Knox.....	16	3	2	1				7	7
Kosciusko.....	14		1					4	14
Lagrange.....	7							1	1
Lake.....	18	2					1	6	2
Laporte.....	18	2	1				1	5	10
Lawrence.....	12		1		1			2	4
Madison.....	34	2	2	1				17	23
Marion.....	94	5	8	2	3	3	2	39	57
Marshall.....	12	5						10	5
Martin.....	7		2					3	7
Miami.....	14							6	7

[TABLE No. 2—Continued.

COUNTIES.	Quota.	Received.		Discharged.		Died.		Present at Close of Year.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Monroe.....	10							1	2
Montgomery.....	14				1	1		8	9
Morgan.....	10							6	5
Newton.....	5	2						3	1
Noble.....	11	2	1					6	4
Ohio.....	2							0	0
Orange.....	8							2	7
Owen.....	7		1					0	6
Parke.....	11		1					4	4
Perry.....	9							2	0
Pike.....	10	1						4	3
Porter.....	9							2	3
Posey.....	11	1	3					6	5
Pulaski.....	7		1					1	4
Putnam.....	10		2					2	14
Randolph.....	14			1		1		15	9
Ripley.....	10		2					2	6
Rush.....	10						1	1	6
St. Joseph.....	28		1		1			9	13
Scott.....	4						1	5	0
Shelby.....	13							5	8
Spencer.....	11							0	0
Starke.....	5		1				2	2	5
Steuben.....	7	1	3	1				5	5
Sullivan.....	12	3						7	6
Switzerland.....	6		1	1				1	4
Tipperanoe.....	18	1		1			1	11	7
Tipton.....	9		1					2	1
Union.....	3							1	2
Vanderburgh.....	34	5	1			1	1	31	15
Vermillion.....	7							2	4
Vigo.....	30	3	4		1		1	26	32
Wabash.....	13		1	2		1		7	4
Wells.....	11							5	12
White.....	9							4	2
Whitley.....	8	1	2			1		5	7
Warren.....	5	1						2	2
Warriek.....	11		1					3	8
Washington.....	9		1					3	5
Wayne.....	19	1	3				1	10	15
Total.....		58	86	16	14	14	18	525	674

TABLE No. 3.

Applications Made by Counties During the Fiscal Year.

COUNTIES.	Boys.	Girls.	Adult Females.	Total.
Adams.....	1		3	4
Allen.....	4	2	1	7
Bartholomew.....			1	1
Benton.....				0
Blackford.....				0
Boone.....				0
Brown.....				0
Carroll.....	1			1
Cass.....	1			1
Clark.....		1		1
Clay.....		1		1
Clinton.....				0
Crawford.....				0
Daviess.....	1			1
Dearborn.....				0
Decatur.....	1		1	2
Dekalb.....				0
Delaware.....	2	1		3
Dubois.....		1		1
Elkhart.....	2	1		3
Fayette.....			1	1
Floyd.....		1		1
Fountain.....				0
Franklin.....				0
Fulton.....	1			1
Gibson.....	3	1	1	5
Grant.....		2	1	3
Greene.....				0
Hamilton.....			1	1
Hancock.....	1			1
Harrison.....	1			1
Hendricks.....			1	1
Henry.....	1	1		2
Howard.....	2			2
Huntington.....				0
Jackson.....			1	1
Jasper.....	1			1
Jay.....	3	1		4
Jefferson.....		1		1
Jennings.....	1		1	2
Johnson.....				0
Knox.....	3			3
Kosciusko.....	1	1	1	3
Lagrange.....				0
Lake.....	3			3
Laporte.....	2	1		3
Lawrence.....	2	1		3
Madison.....	3	3		6
Marion.....	4	1	4	9
Marshall.....	4			4
Martin.....				0
Miami.....		1		1
Monroe.....				0
Montgomery.....				0
Morgan.....				0
Newton.....	2			2

TABLE No. 3—Continued.

COUNTIES.	Boys.	Girls.	Adult Females.	Total.
Noble.....	3	1	1	5
Ohio.....				0
Orange.....				0
Owen.....			1	1
Parke.....	1	1		2
Perry.....				0
Pike.....	1			1
Porter.....				0
Posey.....	1	1		2
Pulaski.....			1	1
Putnam.....			2	2
Randolph.....	1			1
Ripley.....				0
Rush.....	1			1
St. Joseph.....	2	1	1	4
Scott.....				0
Shelby.....	1	1		2
Spencer.....	1			1
Starke.....				0
Steuben.....	1	1		2
Sullivan.....	2			2
Switzerland.....			1	1
Tippecanoe.....	4			4
Tipton.....				0
Union.....				0
Vanderburgh.....	7	2	1	10
Vermillion.....	1			1
Vigo.....	4	2	1	7
Wabash.....		1		1
Warren.....				0
Warriek.....	2	1		3
Washington.....				0
Wayne.....	1			1
Wells.....			1	1
White.....	1			1
Whitley.....	1	1	2	4
Total.....	87	35	30	152

TABLE No. 4.

Applications on File by Counties.

COUNTIES.	Applications Accepted Pending Room.				Applications Pending Not Accepted.			
	Boys.	Girls.	Adult Females.	Total.	Boys.	Girls.	Adult	Total.
Adams.....	1			1				
Allen.....								
Bartholomew.....								
Benton.....		1		1				
Blackford.....			1	1				
Boone.....								
Brown.....								
Carroll.....	1	2		3				
Cass.....								
Clark.....								
Clay.....								
Clinton.....			1	1				
Crawford.....	1			1				
Daviess.....								
Dearborn.....								
Decatur.....		1		1				
Dekalb.....	1			1				
Delaware.....	2			2				
Dubois.....		1		1				
Elkhart.....		2		2				
Fayette.....								
Floyd.....		1		1				
Fountain.....								
Franklin.....								
Fulton.....								
Gibson.....		1		1				
Grant.....		1		1				
Greene.....								
Hamilton.....	1			1				
Hancock.....		1		1				
Harrison.....								
Hendricks.....								
Henry.....		1		1				
Howard.....		3		3				
Huntington.....		1		1				
Jackson.....								
Jasper.....								
Jay.....	1			1				
Jefferson.....								
Jennings.....								
Johnson.....			1	1				
Knox.....								
Kosciusko.....		2		2				
Lagrange.....								
Lake.....	1	1		2				
Laporte.....		1		1				
Lawrence.....	2			2				
Madison.....								
Marion.....	1	1	1	3				
Marshall.....								
Martin.....	1			1				
Miami.....		1	1	2				

TABLE No. 4—Continued.

COUNTIES.	Applications Accepted Pending Room.				Applications Pending Not Accepted.			
	Boys.	Girls.	Adult Females.	Total.	Boys.	Girls.	Adult	Total.
Monroe.....								
Montgomery.....								
Morgan.....								
Newton.....								
Noble.....								
Ohio.....								
Orange.....								
Owen.....								
Parke.....		1	1	2				
Perry.....		1		1				
Pike.....								
Porter.....								
Posey.....								
Pulaski.....								
Putnam.....		2		2				
Randolph.....	1	1	1	3				
Ripley.....								
Rush.....								
St. Joseph.....	1	2		3				
Scott.....								
Shelby.....								
Spencer.....								
Starke.....								
Steuben.....	1			1				
Sullivan.....								
Switzerland.....								
Tippecanoe.....	1			1				
Tipton.....								
Union.....								
Vanderburgh.....	1	2		3				
Vermillion.....								
Vigo.....	1	1		2				
Wabash.....								
Warren.....								
Warrick.....	1			1				
Washington.....								
Wayne.....			1	1				
Wells.....								
White.....								
Whitley.....		1		1				
Total.....	20	33	8	61				

MOVEMENT OF POPULATION FROM OPENING OF INSTITUTION.

From 1879 to 1892 Inclusive.

YEAR.	Received.		Discharged.		Withdrawn.		Died.		Enrolled Close of Year.			Present Close of Year.		Daily Average Attendance.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.	M.	F.	M.	F.	Total.
1879.....									40	22	62	40	22			
1880.....	62								55	27	82	55	27			
1881.....	24						2		45	26	95	45	26			
1882.....	13		13				1									
1883.....	16		1													
1884.....	15								47	41	88	47	41			
1885.....	23		12				1		38	40	78	38	40			
1886.....	13		28				1		31	27	58	31	27			
1887.....	47		32				1		54	51	105	54	51			
1888.....	145		2						124	115	239	124	115			
1889.....	59		22				11		143	126	269	138	124			
1890.....	74		15				6		182	135	317	182	133			
1891.....	90		15				7		223	155	378	220	152			
1892.....	80		21				9		244	184	428	237	184			

From 1893 to 1911 Inclusive.

	Received.		Discharged.		Withdrawn.		Died.		Enrolled Close of Year.			Present Close of Year.		Daily Average Attendance.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.	M.	F.	M.	F.	Total.
1893.....	37		5				6		256	199	455	254	198	241.3	191.7	433
1894.....	50		6				10		268	220	488	258	217	255.2	203.7	458.9
1895.....	35		19				9		269	235	504	264	233	218.7	478.3	
1896.....	28		13				3		281	272	553	287	276	262.6	243.8	506.4
1897.....	27		19				8		291	279	570	284	272	273	265.4	538.4
1898.....	15		14				8		292	277	569	277	268	276.2	268.4	544.6
1899.....	66		44				5		339	308	647	322	300	301.6	267.8	569.4
1900.....	62		14				8		379	382	761	348	364	323.9	333.9	656.9
1901.....	81		22				15		423	432	855	389	406	373.9	372.9	746.8
1902.....	40		19				11		423	432	855	389	406	373.9	372.9	746.8
1903.....	121		14				13		512	566	1,078	479	519	412.4	427.5	831.5
1904.....	39		40				20		477	565	1,042	475	533	466.9	496.9	909.3
1905.....	30		50				20		477	565	1,042	475	533	466.9	496.9	909.3
1906.....	23		19				16		474	565	1,039	471	565	467.2	548.8	1,016
1907.....	37		30				7		465	570	1,035	457	565	455.4	561.9	1,017.3
1908.....	69		54				11		459	574	1,033	458	574	453.2	566	1,019.2
1909.....	57		45				13		502	604	1,106	494	602	467.5	586.6	1,054
1910.....	51		46				14		528	621	1,149	519	617	501.7	605.7	1,107.4
1911.....	58		7				19		517	626	1,143	510	624	512.2	611.1	1,123.3
							14		545	680	1,225	525	674	516.9	630.9	1,147.9

APPROPRIATIONS.

FOR.	Act Approved.	Regular or Specific.	Amount Available for Current Year.	Expended During Year.	Balance.	
					Reverting to State Treasury.	Available for Further Use.
Maintenance.	March 9, 1909.	Regular.	\$149,229 45	\$149,226 90	\$2 55
Repairs and painting	March 9, 1909.	Regular.	7,500 00	7,499 87	13
Cottage for adult females	March 9, 1909.	Specific.	40,713 42	40,711 46	1 96
Total			\$197,442 87	\$197,438 23	\$4 64

SUMMARY OF EXPENDITURES.

October 1, 1910 to September 30, 1911.

FUND.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Total.
Maintenance.	\$20,180 57	\$15,653 06	\$14,576 13	\$15,084 23	\$12,114 47	\$13,445 25	\$10,091 31	\$9,900 22	\$12,994 65	\$9,186 45	\$8,353 67	\$7,646 89	\$149,226 90
Repairs and painting	543 84	468 09	750 14	770 40	498 17	434 47	492 23	873 10	1,263 06	884 05	384 53	136 89	7,499 87
Cottage for adult females	6,266 50	589 00	4,275 45	5,437 04	2,447 51	4,984 58	4,911 65	3,609 78	2,014 32	434 84	3,247 06	2,493 73	40,711 46
Total	\$26,990 91	\$16,710 15	\$19,601 72	\$21,291 67	\$15,060 15	\$18,864 30	\$15,495 19	\$14,383 10	\$16,272 02	\$10,506 24	\$11,985 26	\$10,277 51	\$197,438 23

SUMMARY OF STATISTICS FOR THE YEAR ENDING SEPTEMBER 30, 1911.

(Prepared in conformity to resolution adopted by the National Conference
of Charities and Correction, Philadelphia, May, 1906.)

Movement of Population.

	Males.	Females.	Total.
Number of inmates enrolled October 1.....	510	624	1,134
Temporarily absent	7	2	9
Number of inmates received during year ...	58	86	144
Number of inmates discharged during year..	30	32	62
Number of inmates enrolled Sept. 30, 1911..	545	680	1,225
Temporarily absent	20	6	26
Daily average attendance of inmates for year ending September 30, 1911.....	516.931	630.994	1,147.925
Average number of officers and employees....	78.32	93.74	172.06

Expenditures.

Ordinary expenses—	Per capita.	Total.
Salaries and wages	\$54.673	\$62,761 73
Subsistence	31.417	36,064 76
Clothing	6.171	7,082 83
Office, domestic and outdoor expense.....	37.735	43,317 58
Ordinary repairs	6.533	7,499 87
Total	\$136.529	\$153,723 77
Extraordinary expense—		
New buildings and furnishing same.....		\$40,711 43
Grand total expense		\$197,438 23
Receipts and earnings		5,149 31
Net total expense		\$192,288 92

CLASSIFIED EXPENDITURES.

OCTOBER 1, 1910, TO SEPTEMBER 30, 1911.

CURRENT EXPENDITURES.

Administration.

	Amount.	Per capita.
Trustees or directors.....	\$1,200 00	\$1.045
Officers	9,668 28	8.422
Teachers	6,011 55	5.237
Industrial teachers.....	4,643 64	4.045
Attendants	17,851 28	15.551
Other employes.....	23,386 98	20.373
 Total	 \$62,761 73	 \$54.673

Subsistence.

Fresh meats.....	\$7,458 95	\$6.498
Salt meats and lard.....	2,041 87	1.779
Fish and oysters.....	548 78	.478
Butter, eggs and poultry.....	5,976 80	5.206
Vegetables	434 93	.379
Fresh fruit.....	291 42	.254
Dried fruit.....	1,501 45	1.308
Canned goods.....	2,430 71	2.117
Breadstuffs, cereals, beans, etc.....	9,168 80	7.987
Vinegar and syrup.....	777 83	.678
Tea, coffee and sugar.....	4,421 73	3.852
Other foods.....	1,011 49	.881
 Total	 \$36,064 76	 \$31.417

Clothing, etc.

Clothing	\$818 02	\$0.711
Shoes	2,311 80	2.014
Tailor and sewing room supplies.....	3,580 19	3.119
Miscellaneous	372 82	.325
 Total	 \$7,082 83	 \$6.171

Office, Domestic and Outdoor Departments.

	Amount.	Per capita.
School supplies.....	\$512 24	\$0.446
Library, newspapers and periodicals.....	276 80	.241
Stationery and printing.....	995 60	.867

Office, Domestic and Outdoor Departments—Continued.

	Amount.	Per capita.
Industrial department.....	\$355 20	\$0.309
Furniture, fixtures and bedding.....	5,568 81	4.851
Laundry supplies.....	3,685 41	3.210
Medicine, instruments, etc.....	1,359 27	1.184
Postage, telegraph and telephone.....	515 08	.449
Freight and transportation.....	292 35	.255
Stable, farm and garden.....	7,755 47	6.756
Tobacco	211 30	.184
Music and amusements.....	216 33	.189
Fuel	17,591 83	15.325
Light	446 18	.389
Engineer's supplies.....	672 87	.586
Undertaking	30 00	.026
Insurance	1,083 71	.944
Other classifications.....	1,436 13	1.251
Trustees' traveling expenses.....	313 00	.273
Total	\$43,317 58	\$37.735

Ordinary Repairs and Minor Improvements.

Materials	\$5,304 89	\$4.621
Labor	2,194 98	1.912
Total	\$7,499 87	\$6.533
Grand total of current expenditures.....	\$156,726 71	\$136.529
Less earnings paid to State Treasurer.....	5,149 31	4.486
Net cost to State.....	\$151,577 40	\$132.043

Extraordinary Expenses.

New buildings and furnishings.....	\$40,711 46
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STATEMENT OF EARNINGS.

MONTH.	SOURCE OF RECEIPT.						
	Rags, Old Iron, etc.	Empty Barrels.	Hides, etc.	Live Stock.	Other Classifi- cations.	Tuition.	Total.
October.....	\$6 53	\$10 50	\$3 51	\$12 00	\$27 75	\$188 50	\$248 79
November.....	4 22	3 25		10 00	30	926 75	944 52
December.....	9 16	5 80	5 59		1 10	19 64	41 29
January.....	2 81	2 70		19 00		269 00	293 51
February.....	3 54	1 00	7 02	10 00	12 10	769 75	803 41
March.....	29 30	3 65	17 68	23 00	2 00	141 06	216 69
April.....	3 30	3 95	8 70		96 90	43 50	156 35
May.....	3 82		4 57	20 00	17 75	931 03	977 17
June.....	3 19	2 30	2 73		4 50	35 82	48 54
July.....	1 42	5 65		8 00	3 16	288 77	307 00
August.....	3 67	10	1 26		5 10	812 92	823 05
September.....	23 72	5 50	7 38		5 40	246 99	288 99
Total.....	\$94 68	\$44 40	\$58 44	\$102 00	\$176 06	\$4,673 73	\$5,149 31

EARNINGS DEPOSITED WITH STATE TREASURER.

DATE.	Amount.	Number of Quietus.
November 7, 1910.....	\$248 79	2784
December 5, 1910.....	944 52	2993
January 7, 1911.....	41 29	3171
February 4, 1911.....	293 51	3288
March 7, 1911.....	803 41	3476
April 4, 1911.....	216 69	3684
May 2, 1911.....	156 35	3864
June 5, 1911.....	977 17	4015
July 8, 1911.....	48 54	4208
August 4, 1911.....	307 00	4247
September 1, 1911.....	823 05	4273
September 29, 1911.....	288 99	4436
Total.....	\$5,149 31	

FINANCIAL.

EXHIBIT No. 1.

Consolidated Statement of Revenue and Disbursements for the Fiscal Year Ending September 30, 1911.

Maintenance—

Regular appropriation.....	\$130,000 00	
Excess on 147.925 inmates over 1,000.....	19,229 45	
Expenditures as per Exhibit No. 2.....		\$149,226 90
Reverted to State Treasurer.....		2 55

Repair Fund—

Regular appropriation.....	\$7,500 00	
Expenditures as per Exhibit No. 3.....		\$7,499 87
Reverted to State Treasurer.....		13

Cottage for Adult Females Fund—

Appropriation	\$60,000 00	
Expended in fiscal year ending Sept. 30, 1910..	19,286 58	
Balance for fiscal year ending Sept. 30, 1911..	40,713 42	
Expenditures as per Exhibit No. 4.....		\$40,711 46
Reverted to State Treasurer.....		1 96

Disbursements.

From maintenance fund.....	\$149,226 90
From repair fund.....	7,499 87
From cottage for adult females fund.....	40,711 46
Total	\$197,438 23

EXHIBIT No. 2.

Recapitulation by Vouchers of Expenditures from Maintenance Fund for Fiscal Year Ending September 30, 1911.

October, 1910.

No.	To Whom Paid.	Character of Claim.	Amount
1.	Becker Paper Co.....	Paper, etc	\$35 80
2.	F. Bissell Co.....	Lamp supplies.....	89 29
3.	G. E. Bursley & Co.....	Groceries	130 89
4.	Craig Biscuit Co.....	Crackers	16 32
5.	The Geo. DeWald Co.....	Dry goods	1,061 02
6.	Ft. Wayne Drug Co.....	Drugs, etc.....	72 01

EXHIBIT No. 2—Continued.

October, 1910—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>Character of Claim.</i>	<i>Amount.</i>
7.	S. Freiburger & Bro.....	Leather, etc.....	\$413 51
8.	Griswoldville Mfg. Co.....	Surgeons gauze.....	83 39
9.	C. L. Greeno Co.....	Upholsterer's supplies.....	37 85
10.	Moellering Bros. & Millard.....	Groceries and soaps.....	535 57
11.	Franklin MacVeagh & Co.....	Groceries, etc.....	643 52
12.	National Chemical Co.....	Washing soda.....	39 79
13.	National Mill Supply Co.....	Engineer supplies.....	1 67
14.	P. & H. Supply Co.....	Engineer's supplies.....	2 52
15.	A. H. Perfect & Co.....	Groceries and soaps.....	1,068 15
16.	Rochester Germicide Co.....	Disinfectants	74 97
17.	C. C. Schlatter & Co.....	Hardware	3 05
18.	Thompson & Chute Soap Co.....	Laundry supplies.....	61 56
19.	A. E. Carroll, Superintendent....	Payroll	5,359 08
20.	C. L. Ayers Coal Co.....	Coal	1,989 09
21.	American Medical Association....	Subscription	5 00
22.	American Laundry Machinery Co.	Mangle apron.....	15 25
23.	Armour & Co.....	Hams	73 32
24.	Armour Soap Works.....	Soap chips.....	3 06
25.	S. Bash & Co.....	Vegetables, etc.....	48 07
26.	Bausch & Lomb Optical Co.....	Hospital supplies.....	3 42
27.	Jos. Brudi & Co.....	Corn meal.....	6 75
28.	S. Baum & Co.....	Onions.....	20 00
29.	Berghoff Brewing Association....	Dried grain.....	132 93
30.	E. K. Bush.....	Poultry	3 80
31.	Wm. C. Baade & Co.....	School supplies.....	25 75
32.	L. M. Beck.....	Repairing glasses.....	2 05
33.	A. E. Carroll, Superintendent....	Incidentals	97 00
34.	Central Union Telephone Co.....	Rental and long distance calls	11 10
35.	Cook Brothers.....	Insurance	92 58
36.	Crane Co.....	Steam hose.....	19 20
37.	Crowley Brothers.....	Notions	16 20
38.	Cudahy Packing Co.....	Butterine	158 70
39.	Coverdale & Archer Co.....	Groceries	23 37
40.	Geo. H. Crouse & Co.....	Eggs and fruit.....	148 27
41.	M. J. Cumming Co.....	School supplies.....	53 28
42.	Thomas Charles Co.....	School supplies.....	9 95
43.	S. Chaska Co.....	Dry goods, etc.....	33 27
44.	R. H. Comey Co.....	School material.....	14 17
45.	W. H. Dunn.....	Coke	47 13
46.	W. V. Douglass.....	Insurance	66 13
47.	F. A. Davis Co.....	Subscription	4 95
48.	Henry A. Dreer.....	Bulbs	21 42
49.	Geo. DeWald Co.....	Dry goods.....	280 25
50.	Dreier & Bro.....	Drugs	1 20
51.	Daily Fish Market.....	Fish	23 68
52.	Educator-Journal Co.....	Subscription	1 00
53.	Ft. Wayne Sentinel.....	Advertisement	2 10
54.	Ft. Wayne Electric Works.....	Transformer repaired.....	96
55.	Field Force Pum Co.....	Scalecide	106 25
56.	D. N. Foster Furniture Co.....	Furniture	27 00
57.	Fairbanks, Morse & Co.....	Scales	9 50
58.	S. Freiburger & Bro.....	Leather	256 37
59.	A. Flanagan Co.....	School supplies.....	30 51
60.	Fleischmann Co.....	Yeast	7 00
61.	Florence Publishing Co.....	Perforated patterns.....	3 52
62.	C. L. Greeno Co.....	Upholsterer's supplies.....	88 94
63.	Gardener Governor Co.....	Pump repairs.....	3 60

EXHIBIT No. 2—Continued.

October, 1910—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
64.	H. C. Hitzemann.....	Sewing machine repairs.....	\$8 15
65.	Hibbard, Spencer, Bartlett & Co...	Hardware	37 43
66.	Howett, Warner & Co.....	Dry goods.....	100 21
67.	Home Telephone and Tel. Co.....	Rental	10 50
68.	W. M. Hoyt Co.....	Groceries	239 88
69.	J. H. Hibben Dry Goods Co.....	Dry goods.....	580 66
70.	Hicks & Miller Trucking Co.....	Piano moving.....	5 00
71.	Indiana Young Peoples R. C.....	Reading circle books.....	11 00
72.	Indian Refining Co.....	Oils, etc.....	8 10
73.	Indianapolis News.....	Subscription	5 00
74.	Journal-Gazette Co.....	Advertisement	2 74
75.	James B. Kirk Co.....	Insecticide	6 17
76.	H. Kohnstamm Co.....	Indelible ink.....	4 50
77.	M. F. Kaag & Sons.....	Crockery	65 71
78.	Wm. Kaough Coal Co.....	Coal	35 96
79.	J. Ellwood Lee Co.....	Dry goods.....	98 60
80.	Lehman Book and News Co.....	Books	1 00
81.	W. M. Leedy.....	Insurance	55 55
82.	Lennart & Ortleib.....	Insurance	79 35
83.	J. K. McCracken & Son.....	Insurance	132 70
84.	Franklin MacVeagh & Co.....	Groceries	57 90
85.	Meyer Bros. Drug Co.....	Drugs	2 95
86.	Mayflower Mills.....	Flour and feed.....	597 05
87.	Mossman, Yarnells & Co.....	Iron	7 18
88.	H. K. Mulford Co.....	Drugs	3 75
89.	Moellering Bros. & Millard.....	Soap	186 20
90.	Wm. Moellerings' Sons.....	Brick clamps.....	4 00
91.	Northern Ohio Blanket Mills.....	Blankets	2 10
92.	National Mill Supply Co.....	Engineers' supplies.....	12 03
93.	Norvell Shapleigh Hardware Co...	Hardware	7 31
94.	Pioneer Coal Co.....	Anthracite coal.....	1,787 13
95.	Pickard House Furnishing Co....	Furniture	14 94
96.	Parke, Davis & Co.....	Drugs	4 60
97.	H. Pfeiffer & Son Co.....	Hardware	1 00
98.	W. C. Routh & Co.....	Salt meats.....	19 85
99.	Reid, Murdoch & Co.....	Groceries	36 38
100.	Rhoads & Fillman.....	Dry goods.....	308 58
101.	J. A. Roeblings' Sons Co.....	Wire cable.....	6 73
102.	L. E. Rose.....	Cornet repairs.....	7 10
103.	Swift & Company.....	Meats and butterine.....	1,001 37
104.	Schwarzschild & Sulzberger.....	Meats	123 60
105.	Standard Oil Co.....	Oils, etc.....	27 94
106.	F. M. Smith & Co.....	Hardware	2 20
107.	J. H. Sterling.....	Oysters	13 92
108.	C. C. Schlatter & Co.....	Hardware	2 06
109.	Seavey Hardware Co.....	Hardware	37 64
110.	C. Tresselt & Sons.....	Flour, etc.....	16 85
111.	Tullar-Meredith Co.....	Books	3 00
112.	J. W. Teasdale & Co.....	Dried fruits.....	54 20
113.	Thompson & Chute Soap Co.....	Laundry supplies.....	8 17
114.	Taylor Belting Co.....	Shoe findings.....	51 95
115.	Virgil Piano School Co.....	Books	2 24
116.	E. Van Every.....	Smithing	17 05
117.	John Van Range Co.....	Stove repairs.....	48 20
118.	Vaughans' Seed Store.....	Bulbs	32 50
119.	Van Camp Hardware and Iron Co...	Hardware	7 67
120.	Varney Electric Supply Co.....	Electrical supplies.....	1 60

EXHIBIT No. 2—Continued.

October, 1910—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>Character of Claim.</i>	<i>Amount.</i>
121.	Wolf & Dessauer.....	Dry goods.....	\$392 14
122.	Wrought Iron Range Co.....	Stove repairs.....	12 87
123.	Max Woocher Sons Co.....	Hospital supplies.....	1 95
124.	Western Union Telegraph Co.....	Telegrams.....	1 86
125.	Ben Perley Weaver, M. D.....	Professional services.....	10 00
126.	L. C. Zollinger.....	Smithing.....	37 55
Total			\$20,180 57

November, 1910.

127.	A. E. Carroll, Superintendent....	Payroll	\$5,302 22
128.	Armour & Co.....	Meats and soaps.....	455 66
129.	Aurentz Bros.....	Groceries	2 48
130.	Amberg File and Index Co.....	Files	2 20
131.	American Medical Journal.....	Subscription	1 05
132.	C. L. Ayers Coal Co.....	Coal	1,521 81
133.	Wm. C. Baade & Co.....	School supplies.....	1 00
134.	Becker Paper Co.....	Paper	15 00
135.	G. E. Bursley & Co.....	Groceries	577 81
136.	G. E. Bursley & Co.....	Groceries	249 70
137.	Jos. Brudi & Co.....	Corn meal.....	6 75
138.	S. Bash & Co.....	Chick feed.....	10 90
139.	S. Baum & Co.....	Fruit	7 50
140.	Wm. B. Burford.....	Stationery and printing.....	95 13
141.	A. E. Carroll, Superintendent....	Incidentals	85 14
142.	Central Union Telephone Co.....	Telephone calls.....	13 95
143.	Geo. H. Crouse & Co.....	Eggs, etc.....	171 79
144.	Craig Biscuit Co.....	Crackers	23 97
145.	Craig Biscuit Co.....	Crackers	15 67
146.	Cudahy Packing Co.....	Cleanser	43 55
147.	Thomas Charles Co.....	School supplies.....	2 92
148.	S. Chaska Co.....	Notions	22 50
149.	Coverdale & Archer.....	Groceries	15 65
150.	City Trucking Co.....	Manure	12 50
151.	Daily Fish Market.....	Fish	27 93
152.	Geo. DeWald Co.....	Dry goods.....	562 66
153.	Geo. DeWald Co.....	Dry goods.....	192 06
154.	Dreier Drug Co.....	Drugs	2 40
155.	S. H. Davis	Turkeys	108 80
156.	Henry A. Dreer.....	Soap	3 38
157.	Edmunds Electric Construction Co.....	Electrical supplies.....	2 39
158.	Fred Eckart Packing Co.....	Fertilizer	6 50
159.	Ft. Wayne Sentinel	Legal notice.....	2 00
160.	Ft. Wayne Oil and Supply Co....	Engineer supplies.....	2 20
161.	Ft. Wayne Printing Co.....	Paper	4 25
162.	Ft. Wayne Drug Co.....	Drugs	19 95
163.	Ft. Wayne Drug Co.....	Drugs	16 08
164.	Ft. Wayne Provision Co.....	Lard	27 77
165.	Fleischmann Co.....	Yeast	10 00
166.	S. Freiburger & Bro.....	Leather, etc.....	211 99
167.	Guide Publishing Co.....	Subscription	1 50
168.	Garlock Packing Co.....	Packing	4 75
169.	H. C. Hitzemann Co.....	Sewing machine repairs.....	2 08
170.	Hicks & Miller Trucking Co.....	Manure	5 00
171.	Geo. A. Houser & Co.....	Plow points.....	3 35
172.	Holden Book Cover Co.....	School supplies.....	2 25

EXHIBIT No. 2—Continued.

November, 1910—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
173.	W. M. Hoyt Co.....	Groceries	\$115 25
174.	Hide, Leather Belting Co.....	Leather	374 21
175.	Hoffman Bros.....	Lumber	7 50
176.	R. B. Hanna, P. M.....	Stamps	140 00
177.	International Beller Comp. Co....	Boiler compound.....	62 77
178.	Indiana Lighting Co.....	Artificial gas.....	22 50
179.	Indian Refining Co.....	Oil	3 25
180.	Indiana Reformatory.....	Brooms and mops.....	86 40
181.	Journal-Gazette Co.....	Legal notice.....	2 08
182.	J. T. Johnson.....	Eggs	31 20
183.	W. B. and F. Klopfeinstein.....	Turkeys	116 49
184.	Journal of Experimental Med.....	Subscription	2 00
185.	J. M. Kane & Son.....	Notions	1 20
186.	Henry Klebe.....	Harness	8 25
187.	M. F. Kaag & Sons.....	Crockery	1 72
188.	Lake Shore & Mich S. R. R. Co....	Freight	32 50
189.	Lehman Shoe Co.....	Felts and overs.....	126 25
190.	D. W. Langtry, V. S.....	Professional call.....	4 00
191.	Lehman Book and News Co.....	Notions	1 23
192.	Meyer Bros. Co.....	Drugs	3 10
193.	Moellering Bros. & Millard.....	Groceries	38 98
194.	Moellering Bros. & Millard.....	Groceries	24 05
195.	Franklin MacVeagh & Co.....	Groceries	370 67
196.	Mayflower Mills.....	Flour and feed.....	1,438 67
197.	National Ammonia Co.....	Ammonia	37 13
198.	National Mill Supply Co.....	Engineer supplies.....	29 79
199.	National Chemical Co.....	Caustic soda.....	38 80
200.	National Chemical Co.....	Washing soda.....	28 85
201.	Norvell Shapleigh Hardware Co....	Hardware	24 42
202.	Orr-Lockett Hardware Co.....	Hardware	68 91
203.	Peoples Store.....	Notions	2 58
204.	Parrot's Studio.....	Picture frames.....	10 60
205.	Protective Electric Supply Co....	Electrical supplies.....	25 94
206.	H. Pfeiffer & Son Co.....	Hardware	3 48
207.	H. Pfeiffer & Son Co.....	Hardware	8 79
208.	A. H. Perfect & Co.....	Groceries	65 54
209.	A. H. Perfect & Co.....	Groceries	62 19
210.	W. C. Routh & Co.....	Salt meats.....	30 80
211.	L. E. Rose.....	Band instrument repairs.....	1 50
212.	H. C. Rose.....	Harness	2 50
213.	Rhoads & Fillman.....	Dry goods.....	45 20
214.	Reid, Murdoch & Co.....	Groceries	83 19
215.	Swift & Company.....	Butterine and meats.....	1,411 13
216.	J. H. Sterling.....	Oysters	23 20
217.	Seavey Hardware Co.....	Hardware	25 89
218.	C. C. Schlatter & Co.....	Hardware	29 73
219.	Standard Oil Co.....	Oils, etc.....	52 75
220.	Standard Oil Co.....	Oils	60 78
221.	W. K. Stewart Co.....	Books	7 16
222.	C. Tresselt & Sons.....	Middlings	117 50
223.	Samuel R. Taylor.....	Piano tuning.....	2 00
224.	United States Gypsum Co.....	Land plaster.....	61 55
225.	Vaughan's Seed Store.....	Bulbs	3 21
226.	E. Van Every.....	Smithing	29 35
227.	West End Pottery Co.....	Crockery	121 02
228.	Wolf & Dessauer.....	Dry goods.....	18 25
229.	Western Newspaper Union.....	Paper	1 25

EXHIBIT No. 2—Continued.

November, 1910—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
230.	Western Union Telegraph Co.....	Telegrams	\$4 78
231.	L. Wolff Mfg. Co.....	Engineers' supplies.....	1 09
232.	Will A. Young.....	Orchestra supplies.....	7 75
233.	L. C. Zollinger.....	Wagons, etc.....	154 05
234.	Harvey Funk.....	Ditching	60 00
Total			\$15,653 06

December, 1910.

235.	A. E. Carroll, Superintendent....	Payroll	\$5,128 58
236.	Anthony M. Ellering.....	Salary as trustee.....	75 00
237.	Albert P. Sinclair.....	Salary as trustee.....	75 00
238.	Mary R. Harper.....	Salary as trustee.....	75 00
239.	James W. Sale.....	Salary as trustee.....	25 00
240.	James W. Sale.....	Salary as trustee.....	50 00
241.	Aurentz Bros.....	Groceries	9 56
242.	Armour & Company.....	Salt meats.....	36 36
243.	American Sunday School Union..	Quarterlies	5 80
244.	American Seating Co.....	Chairs	21 60
245.	C. L. Ayers Coal Co.....	Coal	1,810 21
246.	American Laundry Machinery Co..	Mangle apron.....	15 60
247.	F. Bissell Co.....	Incandescent lamps.....	121 98
248.	Wm. B. Burford.....	Stationery and printing.....	279 03
249.	G. E. Bursley & Co.....	Beans, etc.....	572 31
250.	Bass Foundry and Machine Co...	Water gauges.....	4 00
251.	S. Bash & Co.....	Feeds, etc.....	202 49
252.	Brown Trucking Co.....	Cartage	11 25
253.	W. W. Barnard Co.....	Christmas greens.....	3 50
254.	Berghoff Brewing Association....	Dried grain.....	41 93
255.	Brand Stove Co.....	Stove repairs.....	8 00
256.	Jos. Brudi & Co.....	Corn meal.....	15 00
257.	W. C. Baade & Co.....	School supplies.....	7 91
258.	L. M. Beck.....	Photographic supplies.....	4 33
259.	A. E. Carroll, Superintendent....	Incidentals	50 59
260.	Central Grocery.....	Groceries	63 34
261.	Central Union Telephone Co....	Telephone rental.....	6 40
262.	Coverdale & Archer.....	Groceries	11 30
263.	Geo. H. Crouse & Co.....	Eggs and nuts.....	203 11
264.	City Carriage Works.....	Buggy repairs.....	60 25
265.	Thomas Charles Co.....	School supplies.....	30 77
266.	S. Chaska Co.....	Clothing	17 57
267.	Craig Biscuit Co.....	Crackers	7 29
268.	Geo. DeWald Co.....	Dry goods.....	46 88
269.	Geo. DeWald Co.....	Dry goods.....	102 35
270.	Dreier Drug Co.....	Drugs	14 00
271.	Daily Fish Market.....	Fish	32 50
272.	W. H. Dunn.....	Coke	54 75
273.	Dittoe Grocery Co.....	Groceries	3 59
274.	D. & N. Pharmacy.....	Sundries	4 00
275.	Ft. Wayne Fdry. and Mach. Co..	Engineer supplies.....	4 00
276.	Ft. Wayne Oil and Supply Co....	Engineer supplies.....	2 55
277.	Ft. Wayne Sentinel	Legal notice.....	2 10
278.	Ft. Wayne Printing Co.....	Sundry supplies.....	3 55
279.	Ft. Wayne Iron Store Co.....	Iron	1 80
280.	Ft. Wayne Drug Co.....	Drugs	114 14
281.	Fleischmann Co.....	Yeast	7 50

EXHIBIT No. 2—Continued.

December, 1910—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
282.	A. Flanagan Co.....	School supplies.....	\$3 43
283.	S. Freiburger & Bro.....	Shoe findings.....	1 70
284.	D. N. Foster Furniture Co.....	Rugs, etc.....	22 69
285.	Franks Dry Goods Co.....	Clothing.....	4 50
286.	Grinnel Bros.....	Sheet music.....	3 37
287.	Herman Gerke.....	Evergreen trees.....	11 50
288.	Gross Pharmacy.....	Drugs, etc.....	43 03
289.	W. M. Hoyt Co.....	Groceries.....	563 85
290.	J. H. Hibben Dry Goods Co.....	Dry goods.....	36 64
291.	Hoosier Mfg. Co.....	Trucks.....	22 00
292.	Holden Pat. Book Cover Co.....	School supplies.....	3 22
293.	Leslie W. Hills.....	Notions.....	12 50
294.	H. C. Hitzemann Co.....	Sewing machine repairs.....	2 23
295.	J. I. Holcomb Mfg. Co.....	Brushes.....	11 00
296.	Indiana Lighting Co.....	Artificial gas.....	18 36
297.	Indian Refining Co.....	Oil and gasoline.....	6 23
298.	International Boiler Comp. Co....	Boiler compound.....	60 30
299.	Independent 5 and 10 Cent Store.	Sundry supplies.....	3 42
300.	Indiana Reformatory.....	Brooms.....	32 40
301.	J. T. Johnson.....	Turkeys.....	15 18
302.	Journal-Gazette Co.....	Legal Notice.....	1 98
303.	S. H. Knox & Co.....	Notions.....	43 35
304.	Henry Klebe.....	Harness.....	16 25
305.	M. F. Kaag & Sons.....	Crockery.....	7 36
306.	Lennert & Ortlieb.....	Insurance.....	66 12
307.	Lehman Book and News Co.....	Books.....	1 60
308.	Lehman Shoe Co.....	Shoes.....	36 50
309.	Franklin MacVeagh & Co.....	Groceries.....	214 83
310.	Mayflower Mills.....	Flour and feed.....	1,367 46
311.	Mossman Yarnelle Co.....	Iron.....	4 61
312.	Moellering Bros. & Millard.....	Tobacco.....	2 58
313.	Moellering Bros. & Millard.....	Groceries.....	55 18
314.	New England Dial Co.....	Clock dials.....	5 00
315.	Neireiter & Gumper.....	Insurance.....	79 35
316.	Norvell Shapleigh Hardware Co..	Hardware.....	13 10
317.	National Mill Supply Co.....	Engineers' supplies.....	4 37
318.	National Chemical Co.....	Washing soda.....	47 75
319.	A. H. Perfect & Co.....	Groceries.....	87 23
320.	Miles F. Porter, M. D.....	Professional services.....	10 00
321.	P. & H. Supply Co.....	Engineers' supplies.....	4 90
322.	H. Pfeiffer & Son Co.....	Hardware.....	1 12
323.	Parrots Studio.....	Picture frames.....	4 20
324.	Ed. F. Perry.....	X-Ray plates.....	2 50
325.	Pickard House Furnishing Co....	Carpet paper.....	7 05
326.	Rurode Dry Goods Co.....	Clothing, etc.....	17 92
327.	Rhoads & Fillman.....	Clothing.....	21 55
328.	Rhinesmith & Simonson.....	Lumber.....	10 97
329.	W. C. Routh & Co.....	Salt meats.....	21 60
330.	H. C. Rose.....	Harness.....	20 55
331.	L. E. Rose.....	Instruments repaired.....	6 25
332.	Rochester Germicide Co.....	Disinfectants.....	52 82
333.	Reid, Murdoch & Co.....	Groceries.....	67 85
334.	M. M. Schmick.....	Toilet paper.....	330 75
335.	Siemon Wall Paper Co.....	School supplies.....	2 00
336.	Swift & Company.....	Meats and butterine.....	1,023 62
337.	J. H. Sterling.....	Oysters.....	18 56
338.	Alex. H. Staub.....	Stove repairs.....	2 45

EXHIBIT No. 2—Continued.

December, 1910—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
339.	Smith Premier Typewriter Co....	Ribbons	\$3 50
340.	Schwarzschild & Sulzberger.....	Salt meats	40 00
241.	Singer Sewing Machine Co.....	Sewing machines.....	63 05
342.	Standard Oil Co.....	Oils	5 35
343.	Standard Oil Co.....	Oils	44 86
344.	Sprague, Warner & Co.....	Groceries	48 64
345.	W. K. Stewart Co.....	Library books.....	14 16
346.	Seavey Hardware Co.....	Hardware	34 97
347.	J. W. Teasdale & Co.....	Dried fruits.....	107 00
348.	Thread Agency.....	Thread	2 46
349.	Troy Steam Laundry.....	Starch	3 62
350.	Taylor Belting Co.....	Ink	1 10
351.	Vaughan's Seed Store.....	Christmas greens.....	1 90
352.	E. Van Every.....	Smithing	54 65
353.	Western Union Telegraph Co.....	Telegrams	5 45
354.	Wolf & Dessauer.....	Dry goods, etc.....	44 52
355.	L. C. Zollinger.....	Wagon repairs.....	3 70
356.	James W. Sale, Trustee.....	Traveling expenses.....	5 45
357.	Anthony M. Ellering, Trustee.....	Traveling expenses.....	39 90
358.	Albert P. Sinclair, Trustee.....	Traveling expenses.....	49 25
Total			\$14,576 13

January, 1911.

359.	A. E. Carroll, Superintendent....	Payroll	\$5,262 52
360.	C. L. Ayers Coal Co.....	Coal	2,811 57
361.	Aurentz Bros.....	Groceries	14 11
362.	Armour & Company.....	Cooking compound.....	130 96
363.	Brown Trucking Co.....	Drayage	1 50
364.	Wm. B. Burford.....	Printing	9 00
365.	Jennie Battershall.....	Subscription	12 75
366.	A. Bayer & Sons.....	Clinical thermometers.....	20 10
367.	S. Bash & Co.....	Feed and seeds.....	256 50
368.	Berghoff Brewing Association....	Dried grain.....	104 10
369.	Bass Foundry and Machine Co....	Engineers' supplies.....	1 44
370.	Wm. C. Baade & Co.....	School supplies.....	1 60
371.	Jos. Brudi & Co.....	Feeds, etc.....	610 75
372.	Born Steel Range Co.....	Range repairs.....	27 48
373.	G. E. Bursley & Co.....	Groceries	33 64
374.	A. E. Carroll, Superintendent....	Incidentals	98 05
375.	Thomas Charles Co.....	School supplies.....	8 40
376.	Clark Fruit Co.....	Fresh fruit.....	11 55
377.	Chicago Medical Book Co.....	Subscription	8 00
378.	Coverdale & Archer.....	Groceries	17 93
379.	Geo. H. Crouse & Co.....	Eggs, etc.....	104 10
380.	Central Union Telephone Co.....	Rental and exchange.....	14 00
381.	Central Grocery Co.....	Poultry	6 30
382.	Consolidated Engineering Co....	Engineers' supplies.....	3 90
383.	Daily Fish Market.....	Fish and oysters.....	34 90
384.	Geo. DeWald Co.....	Dry goods.....	93 00
385.	Geo. DeWald Co.....	Dry goods.....	67 37
386.	Dominion Coal Co.....	Coal	37 35
387.	Dreier Drug Co.....	Drugs, etc.....	9 35
388.	Henry A. Dreer.....	Seeds	11 50
389.	Ft. Wayne Printing Co.....	Binding and supplies.....	37 30
390.	Ft. Wayne Drug Co.....	Drugs, etc.....	26 50

EXHIBIT No. 2—Continued.

January, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
391.	Ft. Wayne Drug Co.....	Drugs, etc.....	\$86 09
392.	Ft. Wayne Lumber Co.....	Lumber	23 40
393.	Ft. Wayne Sentinel	Legal notice.....	2 10
394.	Ft. Wayne Iron Store Co.....	Iron	1 20
395.	Ft. Wayne Fdry. and Mach. Co.	Engineers' supplies.....	3 05
396.	Fleischmann Co.....	Yeast	9 50
397.	Friedman Mfg. Co.....	Butterine	249 00
398.	D. N. Foster Furniture Co.....	Rugs, etc.....	39 75
399.	Gross Pharmacy.....	Drugs, etc.....	7 72
400.	J. H. Hibben Dry Goods Co.....	Dry goods.....	249 47
401.	A. Hattersley & Sons.....	Paper holders.....	2 00
402.	W. M. Hoyt Co.....	Sugar	208 71
403.	Home Telephone and Tel. Co....	Rental	9 00
404.	Indiana Lighting Co.....	Artificial gas.....	15 84
405.	Indian Refining Co.....	Oils	7 43
406.	J. T. Johnson.....	Eggs	37 50
407.	Journal-Gazette Co.....	Legal notice.....	2 18
408.	Henry Kiebe.....	Harness repairs.....	1 20
409.	Lehman Shoe Co.....	Shoes	2 00
410.	Lehman Book and News Co.....	Paper	1 10
411.	Lake Erie & Western R. R. Co....	Freight on coal.....	67 56
412.	Franklin MacVeagh & Co.....	Groceries	300 99
413.	Franklin MacVeagh & Co.....	Groceries	15 57
414.	W. D. Miller.....	Straw	67 58
415.	Mayflower Mills.....	Flour and feed.....	1,370 00
416.	Meyer Bros. Co.....	Drugs	9 50
417.	H. H. Meier, D. D. S.....	Professional services.....	8 00
418.	Moellering Bros. & Millard.....	Groceries	69 30
419.	Chas. Mills.....	Straw	26 85
420.	National Hosp. Record Pub. Co....	Subscription	1 25
421.	National Chemical Co.....	Laundry supplies.....	101 96
422.	Norvell Shapleigh Hardware Co..	Hardware	16 62
423.	National Mill Supply Co.....	Engineers' supplies.....	1 96
424.	Olds Coal Co.....	Coke	54 00
425.	Parke, Davis & Co.....	Medicine	151 53
426.	Prang Educational Co.....	School supplies.....	1 99
427.	Protective Electric Supply Co....	Engineers' supplies.....	7 45
428.	A. H. Perfect & Co.....	Groceries	186 83
429.	H. Pfeiffer & Son Co.....	Hardware	5 73
430.	Perfection Biscuit Co.....	Crackers	17 06
431.	Pickard House Furnishing Co....	Chairs	22 98
432.	P. & H. Supply Co.....	Engineers' supplies.....	3 43
433.	P. & H. Supply Co.....	Engineers' supplies.....	11 37
434.	W. J. Quan & Co.....	Canned goods.....	65 15
435.	J. C. Roth Packing Co.....	Salt meats.....	43 31
436.	L. E. Rose.....	Band instrument repairs.....	4 10
437.	Red Wing Union Stoneware Co....	Modeling clay.....	5 00
438.	Rhoads & Fillman.....	Dry goods.....	12 05
439.	Reid, Murdoch & Co.....	Groceries	13 40
440.	W. C. Routh Co.....	Salt meats.....	119 40
441.	J. H. Sterling.....	Oysters	9 28
442.	Swift & Company.....	Meats	734 56
443.	Schwarzschild & Sulzberger.....	Meats	239 41
444.	Sprague, Warner & Co.....	Groceries	2 16
445.	Seavey Hardware Co.....	Hardware	22 86
446.	C. C. Schlatter & Co.....	Hardware	2 10
447.	C. C. Schlatter & Co.....	Hardware	16 41

EXHIBIT No. 2—Continued.

January, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
448.	J. E. Stewart.....	Turkey	\$6 00
449.	Thresher & Herman.....	Tank heater.....	5 00
450.	Samuel R. Taylor.....	Piano tuning.....	5 00
451.	J. W. Teasdale Co.....	Dried fruit.....	118 00
452.	J. M. Thorburn & Co.....	Seeds	1 55
453.	G. J. Thompson.....	Sheet music.....	4 00
454.	Thompson & Chute Soap Co.....	Laundry supplies.....	15 93
455.	Mrs. Lillian Underhill.....	Subscriptions	14 00
456.	Vaughan's Seed Store.....	Seeds	4 30
457.	E. Van Every.....	Smithing	24 80
458.	J. B. Vodde.....	Straw	111 62
459.	Rudolph Wurlitzer Co.....	Repairing violins.....	9 00
460.	W. A. Wilde Co.....	Subscription	2 26
461.	John Wiley & Sons.....	Subscription	1 07
462.	Wolf & Dessauer.....	Dry goods.....	99 19
463.	L. C. Zollinger.....	Smithing	5 05
Total			\$15,084 23

February, 1911.

464.	A. E. Carroll, Superintendent....	Payroll	\$5,296 36
465.	Aurentz Bros.....	Groceries	8 53
466.	American Laundry Machinery Co.	Washer repairs.....	3 75
467.	C. L. Ayers Coal Co.....	Fuel	1,551 11
468.	Berghoff Brewing Association....	Dried grain.....	47 90
469.	Jos. Brudi & Co.....	Flour and feed.....	60 64
470.	S. Bash & Co.....	Feed	431 27
471.	Brown Trucking Co.....	Drayage	5 00
472.	S. F. Bowser & Co., Inc.....	Copper sheet.....	1 31
473.	F. Bissell Co.....	Lamps, etc.....	54 87
474.	Wm. B. Burford.....	Stationery and printing.....	308 26
475.	Wm. C. Baade & Co.....	School supplies.....	5 64
476.	The Bashlin Co.....	Valve repairs.....	6 48
477.	Bausch & Lomb Optical Co.....	Medicine	2 16
478.	Ed. M. Baltes & Co.....	Lime	4 71
479.	G. E. Bursley & Co.....	Groceries	37 18
480.	Becker Paper Co.....	Paper bags.....	6 86
481.	A. Burdsall Co.....	Sandpaper	9 39
482.	A. E. Carroll, Superintendent....	Incidentals	68 35
483.	Coverdale & Archer.....	Groceries	20 26
484.	Geo. H. Crouse & Co.....	Eggs and fruit.....	85 07
485.	M. J. Cumming Co.....	School supplies.....	12 18
486.	Central Grocery.....	Poultry	18 66
487.	Guy Conklin.....	Violin strings.....	2 25
488.	Thomas Charles Co.....	School supplies.....	1 97
489.	Central Union Telephone Co.....	Rental and exchange.....	11 15
490.	City Trucking Co.....	Manure	6 25
491.	S. Chaska Co.....	Notions	15 00
492.	Dow Wire and Iron Works.....	Iron bed.....	4 25
493.	Daily Fish Market.....	Fish and oysters.....	54 10
494.	Dominion Coal Co.....	Coal	68 88
495.	Henry A. Dreer.....	Garden seeds.....	3 43
496.	Geo. DeWald Co.....	Dry goods.....	323 66
497.	Ft. Wayne Lumber Co.....	Lumber	12 25
498.	Ft. Wayne Sentinel	Legal notice.....	2 00
499.	Ft. Wayne Drug Co.....	Drugs, etc.....	103 45

EXHIBIT No. 2—Continued.

February, 1911—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>Character of Claim.</i>	<i>Amount.</i>
500.	Freidman Mfg. Co.....	Butterine	\$332 00
501.	Fairbanks, Morse & Co.....	Wheels repaired.....	10 94
502.	S. Freiburger & Bro.....	Shoe leather, etc.....	162 84
503.	S. Freiburger & Bro.....	Shoe findings.....	9 82
504.	Fleischmann Co.....	Yeast	8 00
505.	D. N. Foster Furniture Co.....	Rubber matting, etc.....	30 68
506.	Harvey Funk.....	Ditching	173 86
507.	Gimble Bros.....	Iron bed.....	10 70
508.	C. L. Greeno Co.....	Husks, etc.....	30 17
509.	Hygienic Sheet Co.....	Water proof sheets.....	51 85
510.	H. M. Hooker Co.....	Mirrors	13 25
511.	Hibbard, Spencer, Bartlett & Co..	Hardware	19 63
512.	J. H. Hibben Dry Goods Co.....	Notions	17 85
513.	W. M. Hoyt Co.....	Groceries	52 00
514.	Indiana Reformatory.....	Brooms	37 40
515.	Indiana Village for Epileptics....	Hay	189 75
516.	Indiana Lighting Co.....	Gas	15 57
517.	Indian Refining Co.....	Gasoline	7 43
518.	Journal-Gazette Co.....	Legal notice.....	2 08
519.	Journal of Experimental Med....	Subscription	5 00
520.	Henry Klebe.....	Harness	7 00
521.	Lehman Shoe Co.....	Shoes	2 25
522.	Lake Erie & Western R. R. Co..	Freight on coal.....	79 72
523.	Minneapolis Bedding Co.....	Iron bed.....	4 70
524.	Mandel Bros.....	Iron beds.....	14 87
525.	S. C. Mills.....	Straw	24 95
526.	Franklin MacVeagh & Co.....	Groceries	71 44
527.	Moellering Bros. & Millard.....	Groceries	36 56
528.	Norvell Shapleigh Hardware Co..	Hardware	6 88
529.	Parke, Davis & Co.....	Medicine	89 07
530.	Pixley & Company.....	Clothing	8 25
531.	Perfection Biscuit Co.....	Crackers	26 46
532.	A. H. Perfect & Co.....	Groceries	546 11
533.	P. & H. Supply Co.....	Engineers' supplies.....	2 96
534.	H. C. Rose.....	Harness	18 95
535.	Reid, Murdoch & Co.....	Groceries	11 13
536.	Rurde Dry Goods Co.....	Dry goods.....	22 08
537.	Swift & Company.....	Meats	445 96
538.	Schwarzschild & Sulzberger.....	Meats	130 61
539.	Standard Oil Co.....	Oils and turpentine.....	65 54
540.	Singer Sewing Machine Co.....	Needles	2 02
541.	E. R. Squibbs & Sons.....	Drugs	11 59
542.	Seavey Hardware Co.....	Hardware	17 06
543.	C. C. Schlatter & Co.....	Hardware	2 45
544.	C. C. Schlatter & Co.....	Hardware	16 66
545.	Alex. H. Staub.....	Tinwork	3 25
546.	James M. Stephens.....	Breaking colt.....	40 00
547.	G. J. Thompson.....	Band instruments, etc.....	10 75
548.	Samuel R. Taylor.....	Piano tuning.....	2 00
549.	Edward R. Taylor.....	Carbon bisulphide.....	11 50
550.	Taylor Belting Co.....	Sole leather.....	251 29
551.	C. Tresselt & Sons.....	Feed	49 90
552.	Twin City Separator Co.....	Corn grader.....	11 00
553.	E. Van Every.....	Smithing	27 10
554.	Vaughan's Seed Store.....	Seeds	30 75
555.	Western Union Telegraph Co....	Telegrams	1 64
556.	Wayne Knitting Mills.....	Hose	51 59

EXHIBIT No. 2—Continued.

February, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
557.	Wolf & Dessauer.....	Rugs, and dry goods.....	\$106 83
558.	Will A. Young.....	Orchestra supplies.....	5 95
559.	L. C. Zollinger.....	Wagon repairs.....	10 25
Total			\$12,114 47

March, 1911.

560.	A. E. Carroll, Superintendent.....	Payroll	\$5,149 18
561.	Anthony M. Ellering.....	Salary as trustee.....	75 00
562.	Albert P. Sinclair.....	Salary as trustee.....	75 00
563.	Mary R. Harper.....	Salary as trustee.....	75 00
564.	James W. Sale.....	Salary as trustee.....	75 00
565.	C. L. Ayers Coal Co.....	Coal	2,672 90
566.	Aurentz Bros.....	Groceries	16 60
567.	American Laundry Machinery Co.....	Rivets	1 00
568.	Armour Soap Works.....	Soap	214 44
569.	G. E. Bursley & Co.....	Groceries	86 35
570.	Wm. C. Baade & Co.....	School supplies.....	6 15
571.	S. Bash & Co.....	Seeds and feed.....	80 61
572.	S. Baum & Co.....	Fruit	14 00
573.	Jos. Brudi & Co.....	Flour	182 50
574.	Ed. M. Baltes & Co.....	Lime	1 60
575.	Berghoff Brewing Association.....	Dried grain.....	93 35
576.	A. E. Carroll, Superintendent.....	Incidentals	56 42
577.	Central Union Telephone Co.....	Rental and exchange.....	10 50
578.	Coverdale & Archer.....	Groceries	42 05
579.	Geo. H. Crouse & Co.....	Eggs	24 00
580.	Central Grocery.....	Eggs, and poultry.....	25 41
581.	Cyphers Incubator Co.....	Incubator	24 00
582.	Carmen Laundry Supply Co.....	Washing soda.....	48 72
583.	Guy Conklin.....	Repairing phonograph.....	2 50
584.	Henry A. Dreer.....	Pruning shears.....	2 21
585.	Geo. DeWald Co.....	Dry goods.....	495 46
586.	Daily Fish Market.....	Fish and oysters.....	71 05
587.	Ft. Wayne Drug Co.....	Sundries	6 86
588.	Ft. Wayne Drug Co.....	Drugs	28 97
589.	Ft. Wayne Sentinel.....	Legal notice.....	1 90
590.	Fox Bros. & Co.....	Iron beds.....	131 40
591.	Fleischmann Co.....	Yeast	7 00
592.	Foster Furniture Co.....	Mats	8 50
593.	Friedman Mfg. Co.....	Butterine	415 00
594.	Friend Mfg. Co.....	Spraying nozzles.....	4 00
595.	A. Flanagan Co.....	School supplies.....	17 32
596.	Field Force Pump Co.....	Pump repairs.....	2 03
597.	S. Freiburger & Bro.....	Shoe findings.....	21 23
598.	Garlock Packing Co.....	Packing	4 81
599.	H. C. Hitzemann Co.....	Sewing machine repairs.....	2 25
600.	Geo. A. Houser & Co.....	Plow repairs.....	9 20
601.	W. D. Holderman.....	Chickens	4 00
602.	W. D. Henderson Co.....	Seeds	42 40
603.	Peter Henderson Co.....	Seeds	27 37
604.	Hibbard, Spencer, Bartlett & Co.....	Hardware	13 82
605.	W. M. Hoyt Co.....	Groceries	10 79
606.	J. H. Hibben Dry Goods Co.....	Dry goods.....	26 49
607.	Indiana Village for Epileptics.....	Hay and corn.....	809 92
608.	Indiana Lighting Co.....	Artificial gas.....	14 04

EXHIBIT No. 2—Continued.

March, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
609.	Indian Refining Co.....	Oils, etc.....	\$2 33
610.	Journal-Gazette Co.....	Legal notice.....	1 87
611.	Geo. Jacobs.....	Orchestra supplies.....	1 50
612.	Journal Nervous and Mental Dis.....	Subscription	5 00
613.	M. F. Kaag & Sons.....	Crockery	1 64
614.	W. Langtry, V. S.....	Professional services.....	25 00
615.	Lea & Febiger.....	Subscription	6 00
616.	Lehman Shoe Co.....	Shoes	9 16
617.	H. E. Locke & Co.....	Thread	56 60
618.	Lake Erie & Western R. R. Co.....	Freight on corn.....	71 33
619.	Lake Erie & Western R. R. Co.....	Freight on hay.....	90 00
620.	Mayflower Mills.....	Feeds, etc.....	25 70
621.	Franklin MacVeagh & Co.....	Groceries	162 64
622.	Norvell Shapleigh Hardware Co.....	Hardware	24 87
623.	Olds Coal Co.....	Coke	45 07
624.	Pickard House Furnishing Co.....	Rugs	18 00
625.	H. Pfeiffer & Son Co.....	Hardware	1 59
626.	H. Pfeiffer & Son Co.....	Clipping machine.....	5 52
627.	A. H. Perfect & Co.....	Groceries	394 46
628.	Perfection Biscuit Co.....	Crackers	19 62
629.	P. & H. Supply Co.....	Engineers' supplies.....	5 72
630.	P. & H. Supply Co.....	Engineers' supplies	14 24
631.	W. C. Routh & Co.....	Salt meats.....	76 20
632.	Reid, Murdoch & Co.....	Groceries	78 10
633.	Rochester Germicide Co.....	Disinfectants	66 12
634.	Rhoads & Fillman.....	Quilts	54 76
635.	L. E. Rose.....	Band instruments repaired... ..	4 00
636.	H. C. Rose.....	Harness repairs.....	11 10
637.	Standard Oil Co.....	Oils, etc.....	20 86
638.	Seavey Hardware Co.....	Hardware	67 75
639.	C. C. Schlatter & Co.....	Hardware	17 18
640.	Swift & Company.....	Meats	476 64
641.	Schwarzschild & Sulzberger.....	Meats	107 68
642.	Alex. H. Staub.....	Tinwork	2 48
643.	G. J. Thompson.....	Drum head.....	2 95
644.	Thompson & Chute Soap Co.....	Soda ash.....	34 80
645.	Taylor Belting Co.....	Shoe findings.....	6 20
646.	E. Van Every.....	Smithing	16 10
647.	Wolf & Dessauer.....	Dry goods.....	56 50
648.	August Wolf.....	Hay	19 98
649.	Will A. Young.....	Music	4 70
650.	L. C. Zollinger.....	Smithing	1 25
651.	James W. Sale, Trustee.....	Traveling expenses.....	32 65
652.	Anthony M. Ellering, Trustee.....	Traveling expenses.....	35 25
653.	Albert P. Sinclair, Trustee.....	Traveling expenses.....	32 90
Total			\$13,445 25

April, 1911.

654.	A. E. Carroll, Superintendent.....	Payroll	\$5,243 49
655.	Aurentz Bros.....	Groceries	12 85
656.	American Book Co.....	School books.....	3 84
657.	Alienist and Neurologist.....	Subscription	5 00
658.	Armour & Company.....	Cooking compound.....	74 95
659.	Wm. B. Burford.....	Stationery and printing.....	101 23
660.	S. Bash & Co.....	Seed potatoes, etc.....	8 90

EXHIBIT No. 2—Continued.

April, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
661.	Bash Fertilizer Co.....	Fertilizer	\$219 00
662.	Berghoff Brewing Association....	Dried grain.....	64 50
663.	Edward M. Baltes & Co.....	Cement	1 60
664.	Jos. J. Brudi & Co.....	Flour and feed.....	277 35
665.	S. Baum & Co.....	Fruit	3 50
666.	F. Bissell Co.....	Incandescent lamps.....	67 32
667.	G. E. Bursley & Co.....	Groceries	163 29
668.	A. E. Carroll, Superintendent....	Incidentals	81 02
669.	Coverdale & Archer.....	Groceries	40 62
670.	Craig Biscuit Co.....	Crackers	9 43
671.	S. Chaska Co.....	Notions	14 20
672.	Central Grocery.....	Eggs	23 25
673.	Central Union Telephone Co.....	Exchange service.....	5 00
674.	James B. Clow & Sons.....	Engineers' supplies.....	3 60
675.	Carmen Laundry Supply Co.....	Washing soda.....	48 23
676.	Geo. DeWald Co.....	Dry goods.....	122 32
677.	Geo. DeWald Co.....	Dry goods.....	149 16
678.	Daily Fish Market.....	Fish and oysters.....	18 55
679.	Dreier Drug Co.....	Drugs	1 70
680.	W. F. DeVilbiss.....	Fruit trees.....	63 45
681.	Dominion Coal Co.....	Coal	108 08
682.	W. H. Elverson Pottery Co.....	Flower pots.....	5 70
683.	Ft. Wayne Sentinel	Legal notice.....	2 10
684.	Ft. Wayne Drug Co.....	Drugs	5 75
685.	Ft. Wayne Drug Co.....	Drugs	8 96
686.	Ft. Wayne Fdry. and Mach. Co..	Engineers' supplies.....	2 90
687.	Friedman Mfg. Co.....	Butterine	319 39
688.	Fleischmann Co.....	Yeast	6 00
689.	S. Freiburger & Bro.....	Shoe findings.....	2 22
690.	S. Freiburger & Bro.....	Shoe findings.....	6 57
691.	D. N. Foster Furniture Co.....	Chair seats.....	6 80
692.	A. Flanagan Co.....	School supplies.....	1 15
693.	Monroe W. Fitch & Sons.....	Insurance	45 00
694.	E. Gilmartin & Sons.....	Lumber	5 64
695.	Geo. A. Houser & Co.....	Implements	59 04
696.	J. H. Hibben Dry Goods Co.....	Dry goods.....	328 03
697.	J. F. Hartz Co.....	Instruments	19 20
698.	Hibbard, Spencer, Bartlett & Co..	Hardware	24 71
699.	W. M. Hoyt & Co.....	Groceries	308 29
700.	Home Telephone and Tel. Co....	Rental and exchange.....	11 40
701.	Leslie W. Hills.....	Baseballs, etc.....	4 40
702.	Indiana Lighting Co.....	Artificial gas.....	17 10
703.	Indian Refining Co.....	Oils, etc.....	12 50
704.	Indiana Reformatory.....	Tinware	139 41
705.	International Boiler Comp. Co....	Boiler compound.....	58 75
706.	Journal-Gazette Co.....	Advertisement	5 82
707.	Henry Klebe.....	Harness repairs.....	9 90
708.	James M. Kane & Son.....	School supplies.....	1 80
709.	W. B. & F. Klopfenstein.....	Eggs	55 80
710.	Dr. W. Langtry, V. S.....	Professional service.....	9 25
711.	Leshar Warner Dry Goods Co....	Dry goods.....	21 44
712.	Mayflower Mills.....	Flour	8 40
713.	Meyer Bros. Drug Co.....	Drugs	41 10
714.	Franklin MacVeagh & Co.....	Groceries	189 72
715.	S. J. Marquardt, V. S.....	Professional services.....	3 00
716.	Morrell & Morley.....	Spray hose.....	7 50
717.	Moellerling Bros. & Millard.....	Groceries	144 54

EXHIBIT No. 2—Continued.

April, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
718.	C. E. Miller.....	Hay	\$45 96
719.	National Mill Supply Co.....	Engineers' supplies.....	1 77
720.	News Publishing Co.....	Advertisement	3 85
721.	B. R. Noll.....	Bee supplies.....	6 00
722.	H. Pfeiffer & Son Co.....	Hardware	9 51
723.	Perfection Biscuit Co.....	Crackers	16 09
724.	Perfection Biscuit Co.....	Crackers	17 22
725.	Pickard House Furnishing Co....	Chairs	34 20
726.	A. H. Perfect & Co.....	Groceries	32 46
727.	A. H. Perfect & Co.....	Groceries	18 68
728.	Rhoads & Fillman.....	Dry goods.....	48 00
729.	L. E. Rose.....	Instrument repairs.....	1 50
730.	H. C. Rose.....	Harness	19 65
731.	Henry Ranke, M. D.....	Professional services.....	11 00
732.	Sprague, Warner & Co.....	Groceries	68 47
733.	Will Sovine.....	Hay	27 93
734.	Standard Oil Co.....	Oils, etc.....	102 78
735.	Swift & Company.....	Meats	318 33
736.	Schwarzschild & Sulzberger....	Meats	123 08
737.	Schrader & Wilson.....	Insurance	66 13
738.	Seavey Hardware Co.....	Hardware	55 74
739.	C. C. Schlatter & Co.....	Hardware	34 20
740.	J. W. Teasdale & Co.....	Fruit	54 25
741.	Thompson & Chute Soap Co.....	Laundry supplies.....	40 32
742.	Edward R. Taylor.....	Disinfectant	8 50
743.	Samuel R. Taylor.....	Tuning piano.....	2 00
744.	Thresher & Herrman.....	Pump repairs.....	5 05
745.	G. J. Thompson.....	Band music.....	2 80
746.	John Van Range Co.....	Stove repairs.....	37 53
747.	E. Van Every.....	Smithing	13 05
748.	Wayne Fish Market.....	Fish	28 59
749.	Wolf & Dessauer.....	Dry goods.....	11 05
Total			\$10,091 31

May, 1911.

750.	A. E. Carroll, Superintendent....	Payroll	\$5,203 37
751.	Aurentz Bros.....	Groceries	8 70
752.	American Laundry Machinery Co.	Mangle apron.....	15 00
753.	Armour & Company.....	Cooking compound.....	54 24
754.	Jos. Brudi & Co.....	Flour and feed.....	304 38
755.	G. E. Bursley & Co.....	Groceries	14 20
756.	G. E. Bursley & Co.....	Groceries	109 15
757.	F. Bissell & Co.....	Electrical supplies.....	78
758.	Wm. C. Baade & Co.....	School supplies.....	2 55
759.	S. Bash & Co.....	Orchard supplies.....	8 50
760.	Brookside Farm Co.....	Stallion service.....	75 00
761.	Gustave W. Boerger.....	Insurance	105 81
762.	S. Baum & Co.....	Fruit	7 78
763.	Brown Trucking Co.....	Cartage	3 00
764.	L. M. Beck.....	Clock repairing.....	2 50
765.	Ed. M. Baltes & Co.....	Lime	4 90
766.	A. E. Carroll, Superintendent....	Incidentals	72 00
767.	Guy Conklin.....	Musical instruments.....	1 50
768.	Coverdale & Archer.....	Groceries	18 30
769.	Central Union Telephone Co.....	Rental and exchange.....	6 75

EXHIBIT No. 2—Continued.

May, 1911—Continued.

<i>No.</i>	<i>To Whom Paid.</i>	<i>Character of Claim.</i>	<i>Amount.</i>
770.	Central Grocery Co.....	Eggs	\$68 63
771.	Carmen Laundry Supply Co.....	Washing soda.....	48 24
772.	City Trucking Co.....	Manure	6 25
773.	S. Chaska Co.....	Hats	44 25
774.	Geo. DeWald Co.....	Dry goods.....	256 14
775.	Geo. DeWald Co.....	Dry goods.....	126 74
776.	Dreier Drug Co.....	Drugs	9 45
777.	Daily Fish Market.....	Fish	9 00
778.	Ft. Wayne Sentinel.....	Advertisement	2 00
779.	Ft. Wayne Printing Co.....	Ink	3 75
780.	Ft. Wayne Drug Co.....	Corks	1 15
781.	Ft. Wayne Lumber Co.....	Lumber	6 90
782.	Furnas Ice Cream Co.....	Ice cream.....	4 20
783.	Friedman Mfg. Co.....	Butterine.....	383 25
784.	Fleischmann Co.....	Yeast	7 50
785.	S. Freiburger & Bro.....	Shoe findings.....	13 42
786.	Fox Bros. Co.....	Furniture	2 80
787.	C. L. Greeno & Co.....	Pantesote	4 00
788.	Geo. W. Gillie, V. S.....	Professional services.....	4 00
789.	R. B. Hanna, P. M.....	Stamped envelopes.....	90 00
790.	W. D. Henderson Co.....	Feed	13 30
791.	Hygienic Sheet Co.....	Bedding	75 73
792.	Geo. A. Houser & Co.....	Implements	2 03
793.	Leslie W. Hills.....	Ball and gloves.....	2 75
794.	W. M. Hoyt Company.....	Groceries	319 38
795.	Hibbard, Spencer, Bartlett & Co.....	Hardware	28 19
796.	James Hamilton.....	Hay	19 89
797.	Geo. Herber.....	Hay	18 15
798.	Indiana Lighting Co.....	Artificial gas.....	18 09
799.	Indian Refining Co.....	Oils	11 13
800.	Indiana Reformatory.....	Tinware, etc.....	132 00
801.	Journal-Gazette Co.....	Advertisement	1 76
802.	M. F. Kaag & Sons.....	Crockery	13 85
803.	Henry Klebe.....	Harness	7 80
804.	James M. Kane & Son.....	Sporting goods.....	8 75
805.	Leshar Warner Dry Goods Co....	Dry goods.....	46 20
806.	Dr. W. Langtry, V. S.....	Professional services.....	3 50
807.	Franklin MacVeagh & Co.....	Groceries	183 73
808.	Moellering Bros. & Millard.....	Groceries	18 00
809.	Hugo H. Meier, D. D. S.....	Professional services.....	4 00
810.	Mayflower Mills.....	Flour	8 78
811.	Mandel Bros.....	Rug	9 50
812.	Meyer Bros. Drug Co.....	Drugs	48 60
813.	Motor Transfer Co.....	Transportation	17 00
814.	Olds Coal Co.....	Coke	36 10
815.	Perfection Biscuit Co.....	Crackers	14 91
816.	A. H. Perfect & Co.....	Groceries	67 50
817.	A. H. Perfect & Co.....	Groceries	116 62
818.	H. Pfeiffer & Son Co.....	Lawn mower.....	65 00
819.	L. E. Rose.....	Repairing instruments.....	5 50
820.	Swift & Company.....	Meats, etc.....	809 08
821.	Schwarzschild & Sulzberger.....	Meats	125 52
822.	Sherman Bros. Co.....	Coffee	58 00
823.	C. C. Schlatter & Co.....	Hardware	4 90
824.	C. C. Schlatter & Co.....	Hardware	6 14
825.	Alex. H. Staub.....	Tinwork	5 38
826.	Alex. Sloan, Jr., & Co.....	Bedding	2 06

EXHIBIT No. 2—Continued.

May, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
827.	Seavey Hardware Co.....	Hardware	\$26 68
828.	W. B. Saunders Co.....	Subscription	6 06
829.	John C. Schwartz.....	Straw	44 31
830.	J. W. Teasdale & Co.....	Fruit	108 50
831.	W. J. & M. S. Vesey.....	Flower cuttings.....	5 50
832.	E. Van Every.....	Smithing	22 75
833.	Viberg & McMaken.....	Impleraents	55 90
834.	Vaughan's Seed Store.....	Grass seed.....	12 65
835.	Wayne Fish Market.....	Fish	29 71
836.	Wolf & Dessauer.....	Dry goods	149 92
Total			\$9,900 22

June, 1911.

837.	A. E. Carroll, Superintendent....	Payroll	\$5,213 86
838.	Anthony M. Ellering.....	Salary as trustee.....	75 00
839.	James W. Sale.....	Salary as trustee.....	75 00
840.	Mary R. Harper.....	Salary as trustee.....	75 00
841.	Albert P. Sinclair.....	Salary as trustee.....	25 00
842.	Geo. D. Gaby.....	Salary as trustee.....	50 00
843.	C. L. Ayers Coal Co.....	Coal	2,364 36
844.	Armour & Company.....	Soap	216 99
845.	American Medical Association..	Subscription	5 09
846.	Aurentz Bros.....	Groceries	2 64
847.	G. E. Bursley & Co.....	Baskets	8 24
848.	G. E. Bursley & Co.....	Groceries	50 31
849.	Becker Paper Co.....	Paper	29 85
850.	S. Baum & Co.....	Fresh fruit.....	20 90
851.	S. Bash & Co.....	Potatoes	143 75
852.	W. C. Baade & Co.....	School supplies.....	2 91
853.	Jos. Brudi & Co.....	Flour and feed.....	309 64
854.	Berghoff Brewing Association....	Dried grain.....	67 83
855.	A. F. Carroll, Superintendent....	Incidentals	102 10
856.	S. Chaska Co.....	Notions	23 92
857.	Central Union Telephone Co....	Rental, etc.....	8 55
858.	Coverdale & Archer.....	Groceries	28 93
859.	Chauvey Bros.....	Smithing	2 50
860.	Central Grocery.....	Eggs	66 00
861.	Craig Biscuit Co.....	Crackers	21 84
862.	Craig Biscuit Co.....	Crackers	13 01
863.	Geo. DeWald Co.....	Dry goods.....	252 33
864.	Geo. DeWald Co.....	Dry goods.....	93 72
865.	Dreier Drug Co.....	Drugs	4 45
866.	Daily Fish Market.....	Fish	44 25
867.	Ft. Wayne Sentinel.....	Legal notice.....	2 00
868.	Ft. Wayne Art Glass Co.....	Glass	2 50
869.	Ft. Wayne Drug Co.....	Drugs	2 70
870.	Ft. Wayne Iron Store Co.....	Iron	2 14
871.	Fisher Bros. Paper Co.....	Paper	8 53
872.	Fleischmann Co.....	Yeast	6 00
873.	Friedman Mfg. Co.....	Butterine	306 60
874.	Fox Bros.....	Furniture	44 45
875.	S. Freiburger & Bro.....	Leather	48 69
876.	S. Freiburger & Bro.....	Leather	5 35
877.	A. Flanagan Co.....	School supplies.....	5 40
878.	C. L. Greeno & Co.....	Bedding	39 69

EXHIBIT No. 2—Continued.

June, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
879.	W. M. Hoyt Co.....	Groceries	\$13 41
880.	J. H. Hibben Dry Goods Co.....	Dry goods.....	202 27
881.	Hibbard, Spencer, Bartlett & Co.....	Hardware	3 84
882.	A. Hattersley & Sons.....	Furniture	3 00
883.	Geo. A. Houser & Co.....	Implements	5 91
884.	Hide, Leather, Belting Co.....	Leather	234 30
885.	H. C. Hitzemann.....	Machine repairs.....	1 81
886.	Hanna-Brackenridge Co.....	Industrial supplies.....	34 30
887.	Indiana Lighting Co.....	Artificial gas.....	22 50
888.	Indian Refining Co.....	Oils	8 03
889.	Indiana Reformatory.....	Brooms and mops.....	87 00
890.	Journal-Gazette	Legal notice.....	1 98
891.	M. F. Kaag & Sons.....	Crockery	7 60
892.	Henry Klebe.....	Harness	10 90
893.	Dr. W. Langtry, V. S.....	Professional services.....	2 00
894.	M. C. Lilley & Co.....	Band caps.....	7 20
895.	Longman's Green & Co.....	Subscription	3 14
896.	Lehman Shoe Co.....	Shoes	1 86
897.	Franklin MacVeagh & Co.....	Baking powder.....	20 98
898.	Moellering Bros. & Millard.....	Groceries	41 70
899.	Moellering Bros. & Millard.....	Groceries	14 13
900.	Meyer Bros. Drug Co.....	Drugs	20 34
901.	Edgar A. Murray Co.....	Disinfectant	5 00
902.	National Chemical Co.....	Caustic soda.....	53 23
903.	National Mill Supply Co.....	Packing	12 70
904.	A. H. Perfect & Co.....	Groceries	9 04
905.	A. H. Perfect & Co.....	Groceries	434 23
906.	D. H. Plank.....	Hay	20 23
907.	P. & H. Supply Co.....	Engineers' supplies.....	12 63
908.	Pickard House Furnishing Co.....	Furniture	1 50
909.	Patterson Fletcher Co.....	Clothing	3 00
910.	Parrot Art Studio.....	Picture frames.....	15 90
911.	Reid, Murdoch & Co.....	Groceries	71 43
912.	Swift & Company.....	Meats	704 00
913.	Schwarzschild & Sulzberger.....	Meats	125 63
914.	Sprague Warner & Co.....	Groceries	15 43
915.	Seavey Hardware Co.....	Hardware	29 98
916.	Standard Oil Co.....	Oils, etc.....	33 08
917.	C. C. Schlatter & Co.....	Wire cloth.....	5 24
918.	C. C. Schlatter & Co.....	Hardware	1 40
919.	Star & Crescent Milling Co.....	Flour	223 50
920.	W. B. Saunders Co.....	Subscription	6 00
921.	Singer Sewing Machine Co.....	Needles and repairs.....	7 29
922.	Alex H. Staub.....	Tinwork	6 17
923.	J. W. Teasdale & Co.....	Dried fruit.....	120 00
924.	Thompson & Chute Soap Co.....	Soap	15 68
925.	Samuel R. Taylor.....	Piano tuning.....	3 00
926.	C. Tresselt & Sons.....	Flour	18 40
927.	G. J. Thompson.....	Band supplies.....	9 20
928.	Clerk Urbine.....	Hay	19 80
929.	E. Van Every.....	Smithing	24 45
930.	Wolf & Dessauer.....	Dry goods.....	123 85
931.	Wayne Knitting Mills.....	Hosiery	40 57
932.	Herman F. Wiegman.....	Carpentering	29 85
933.	Western Electric Co.....	Telephone	9 27
934.	West End Pottery Co.....	Crockery	38 48
935.	John B. Young.....	Thread	52 81

EXHIBIT No. 2—Continued.

June, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
936.	Will A. Young.....	Orchestra supplies.....	\$7 95
937.	L. C. Zollinger.....	Smithing	1 75
938.	Albert P. Sinclair, Trustee.....	Traveling expenses.....	19 90
939.	James W. Sale, Trustee.....	Traveling expenses.....	4 50
940.	Anthony M. Ellering, Trustee.....	Traveling expenses.....	25 85
941.	George D. Gaby, Trustee.....	Traveling expenses.....	12 60
Total			\$12,994 65

July, 1911.

942.	A. E. Carroll, Superintendent.....	Payroll	\$4,812 45
943.	Armour & Company.....	Meats	13 08
944.	Wm. B. Burford.....	Stationery and printing.....	68 42
945.	Jos. Brudi & Co.....	Flour and feed.....	412 07
946.	S. Bash & Co.....	Seeds, etc.....	152 13
947.	L. M. Beck.....	Repairing glasses.....	1 00
948.	S. Baum & Co.....	Vegetables, etc.....	53 75
949.	G. E. Bursley & Co.....	Groceries	362 51
950.	S. Chaska Co.....	Notions	21 17
951.	Coverdale & Archer.....	Groceries	51 32
952.	A. E. Carroll, Superintendent.....	Incidentals	52 70
953.	Central Union Telephone Co.....	Rental and exchange.....	8 85
954.	Central Grocery Co.....	Groceries	57 75
955.	Geo. DeWald Co.....	Dry goods.....	93 00
956.	Geo. DeWald Co.....	Dry goods.....	250 66
957.	Dreier Drug Co.....	Drugs	2 00
958.	Daily Fish Market.....	Fish	33 22
959.	Fred Eckart Packing Co.....	Meats	41 93
960.	Ft. Wayne Printing Co.....	Book binding.....	1 50
961.	Ft. Wayne Dairy Co.....	Ice cream.....	30 00
962.	Ft. Wayne Sentinel.....	Legal notice.....	2 20
963.	Ft. Wayne Oil and Supply Co.....	Engineers' supplies.....	2 36
964.	Ft. Wayne Oil and supply Co.....	Engineers' supplies.....	4 76
965.	Ft. Wayne Dental Depot.....	Dental supplies.....	23 40
966.	Ft. Wayne Drug Co.....	Drugs	6 13
967.	C. M. Flinn & Co.....	Smithing	5 25
968.	Fleischmann Co.....	Yeast	7 00
969.	Freidman Mfg. Co.....	Butterine	153 30
970.	S. Freiburger & Bro.....	Shoe findings.....	1 52
971.	S. Freiburger & Bro.....	Shoe findings.....	10 72
972.	James E. Graham.....	Insurance	99 19
973.	Home Telephone and Tel. Co.....	Rental and exchange.....	9 45
974.	Leslie W. Hills.....	Fireworks, etc.....	21 45
975.	J. H. Hibben Dry Goods Co.....	Dry goods.....	169 87
976.	Hibbard, Spencer, Bartlett & Co.....	Hardware	34 96
977.	H. C. Hitzemann.....	Machine repairs.....	1 46
978.	Geo. A. Houser & Co.....	Implement repairs.....	10 44
979.	Indiana Lighting Co.....	Artificial gas.....	19 71
980.	Indian Refining Co.....	Oils	5 88
981.	Journal-Gazette Co.....	Legal notice.....	2 08
982.	J. C. Jackson.....	Smithing	16 85
983.	H. Kohnstamm.....	Ink	4 50
984.	M. P. Kaag & Sons.....	Crockery	1 00
985.	Henry Klebe.....	Harness	10 00
986.	Meyer Bros. Drug Co.....	Drugs	20 78
987.	Morris & Company.....	Butterine and meats.....	326 32
988.	Moellering Bros. & Millard.....	Groceries	30 86

EXHIBIT No. 2—Continued.

July, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
989.	Franklin MacVeagh & Co.....	Groceries	\$58 45
990.	Franklin MacVeagh & Co.....	Groceries	8 71
991.	National Chemical Co.....	Washing soda.....	47 75
992.	Olds Coal Co.....	Coke	45 00
993.	Pioneer Coal Co.....	Coal	136 65
994.	B. G. Pratt Co.....	Sulfoeide.....	30 00
995.	Pixley & Company.....	Clothing	4 50
996.	A. H. Perfect & Co.....	Groceries	5 31
997.	A. H. Perfect & Co.....	Groceries	153 78
998.	Protective Electric Supply Co....	Electrical supplies.....	10 06
999.	Reid, Murdoch & Co.....	Groceries	28 71
1000.	L. E. Rose.....	Repairing horns.....	3 15
1001.	Swift & Company.....	Meats	385 51
1002.	Schwarzschild & Sulzberger.....	Meats	297 92
1003.	Star & Crescent Milling Co.....	Flour	229 00
1004.	Sherman Bros. Co.....	Coffee	58 53
1005.	C. C. Schlatter & Co.....	Hardware	3 56
1006.	Seavey Hardware Co.....	Hardware	11 02
1007.	Alex. H. Staub.....	Tinware	13 40
1008.	Standard Oil Co.....	Oils, etc.....	19 59
1009.	Sprague, Warner & Co.....	Groceries	61 95
1010.	Taylor Belting Co.....	Shoe findings.....	7 40
1011.	Vaughan's Seed Store.....	Garden tools.....	3 25
1012.	Viberg & McMaken.....	Machinery repairs.....	1 05
1013.	E. Van Every.....	Smithing	4 00
1014.	Warsaw-Wilkinson Co.....	Machinery repairs.....	14 10
1015.	Will A. Young.....	Orchestra supplies.....	9 00
1016.	L. C. Zollinger.....	Smithing	4 15
Total			\$9,186 45

August, 1911.

1017.	A. E. Carroll, Superintendent....	Payroll	\$4,818 34
1018.	American Laundry Machinery Co.	Mangle apron.....	15 60
1019.	Charles Alexander.....	Tuning piano.....	2 00
1020.	W. S. Archer Trucking Co.....	Manure	13 00
1021.	Jos. J. Brudi & Co.....	Flour and feed.....	378 05
1022.	Berghoff Brewing Association....	Dried grain.....	89 99
1023.	D. W. Brothers, V. S.....	Professional services.....	6 00
1024.	G. E. Bursley & Co.....	Groceries	436 63
1025.	S. Baum & Co.....	Potatoes	24 00
1026.	A. E. Carroll, Superintendent....	Incidentals	38 09
1027.	Central Union Telephone Co....	Exchange service.....	5 00
1028.	Coverdale & Archer.....	Groceries	69 71
1029.	Central Grocery Co.....	Eggs	47 85
1030.	Carman Laundry Supply Co.....	Soda ash.....	52 78
1031.	City Trucking Co.....	Manure	6 25
1032.	Guy Conklin.....	Orchestra supplies.....	6 60
1033.	James B. Clow & Sons.....	Engineers' supplies.....	4 18
1034.	Geo. DeWald Co.....	Dry goods	63 61
1035.	Geo. DeWald Co.....	Dry goods.....	39 96
1036.	Daily Fish Market.....	Fish	41 80
1037.	Dreier Drug Co.....	Drugs	7 25
1038.	Benjamin Evard.....	Threshing oats.....	34 66
1039.	Ft. Wayne Sentinel.....	Public notice.....	3 60
1040.	Ft. Wayne Dental Depot.....	Dental supplies.....	11 55

EXHIBIT No. 2—Continued.

August, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
1041.	Ft. Wayne Iron Store Co.....	Iron	\$7 31
1042.	Ft. Wayne Oil and Supply Co....	Engineers' supplies.....	17 15
1043.	S. Freiburger & Bro.....	Leather, etc.....	30 33
1044.	S. Freiburger & Bro.....	Leather, etc.....	18 03
1045.	Farnas Ice Cream Co.....	Ice cream.....	3 00
1046.	Fleischmann Company.....	Yeast	6 00
1047.	W. M. Hoyt Company.....	Groceries	52 22
1048.	Hibbard, Spencer, Bartlett & Co.	Hardware	8 79
1049.	Harding & Lahmeyer.....	Insurance	45 00
1050.	Geo. A. Houser & Co.....	Implement repairs.....	3 15
1051.	Indiana Lighting Co.....	Artificial gas.....	18 72
1052.	Indiana Reformatory.....	Tinware, etc.....	71 10
1053.	Indian Refining Co.....	Oils	7 38
1054.	Journal-Gazette Co.....	Legal notice.....	6 02
1055.	J. C. Jackson.....	Smithing	16 85
1056.	Henry Klebe.....	Harness repairs.....	7 60
1057.	M. F. Kaag & Sons.....	Crockery	2 00
1058.	Meyer Bros. Drug Co.....	Drugs	46 01
1059.	Morris & Company.....	Butterine	305 16
1060.	Moellering Bros. & Millard.....	Groceries	26 70
1061.	Franklin MacVeagh & Co.....	Syrup	141 92
1062.	Neireiter & Gumpfer.....	Insurance	150 80
1063.	National Ammonia Co.....	Ammonia	26 00
1064.	News Publishing Co.....	Legal notice.....	5 51
1065.	New England Dial Co.....	Clock dials.....	5 00
1066.	Olds Coal Co.....	Coke	32 08
1067.	Perfection Biscuit Co.....	Crackers and fruit.....	84 36
1068.	Perfection Biscuit Co.....	Crackers	15 21
1069.	H. Pfeiffer & Son Co.....	Hardware	11 03
1070.	A. H. Perfect & Co.....	Groceries	25 97
1071.	Reid, Murdoch & Co.....	Groceries	16 02
1072.	Dr. B. W. Rhamy.....	Culture tests.....	4 06
1073.	L. E. Rose.....	Repairing instruments.....	8 15
1074.	Swift & Company.....	Meats	441 09
1075.	Schwarzschild & Sulzberger.....	Meats	127 08
1076.	Sherman Bros. Co.....	Coffee	58 53
1077.	Standard Oil Co.....	Oils, etc.....	24 16
1078.	C. C. Schlatter & Co.....	Prushes	1 47
1079.	Seavey Hardware Co.....	Hardware	24 13
1080.	Stover Mfg. Co.....	Grinder repairs.....	3 15
1081.	Singer Sewing Machine Co.....	Needles	1 48
1082.	J. W. Teasdale & Co.....	Dried fruit.....	67 00
1083.	C. Tresselt & Sons.....	Feed	125 62
1084.	Vaughan's Seed Store.....	Onion sets.....	4 20
1085.	W. J. & M. S. Vesey.....	Carnation plants.....	12 00
1086.	Wolf & Dessauer.....	Thimbles	3 60
1087.	Western Union Telegraph Co.....	Telegrams	3 33
1088.	L. C. Zollinger.....	Smithing	5 85

Total \$8,353 67

September, 1911.

1089.	A. E. Carroll, Superintendent....	Payroll	\$4,772 28
1090.	Anthony M. Ellering.....	Salary as trustee.....	75 00
1091.	Geo. D. Gaby.....	Salary as trustee.....	75 00
1092.	Mary R. Harper.....	Salary as trustee.....	75 00

EXHIBIT No. 2—Continued.

September, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
1093.	James W. Sale.....	Salary as trustee.....	\$75 00
1094.	Wm. B. Burford.....	Stationery and printing.....	111 25
1095.	G. E. Bursley & Co.....	Groceries	2 94
1096.	Jos. Brudi & Co.....	Flour and feed.....	424 88
1097.	A. E. Carroll, Superintendent....	Incidentals	28 58
1098.	Coverdale & Archer.....	Groceries	13 37
1099.	Central Union Telephone Co.....	Telephone rental.....	5 00
1100.	S. Chaska Co.....	Clothing	10 00
1101.	Guy Conklin.....	Orchestra supplies.....	1 50
1102.	Daily Fish Market.....	Fish	33 39
1103.	Dreier Drug Co.....	Drugs	8 75
1104.	Ft. Wayne Dental Depot.....	Dental supplies.....	13 37
1105.	Ft. Wayne Sentinel.....	Legal notice.....	1 90
1106.	Fleischmann Co.....	Yeast	6 50
1107.	Geo. W. Gillie, V. S.....	Professional services.....	5 25
1108.	Leslie W. Hills.....	Sporting goods.....	1 75
1109.	H. C. Hitzemann.....	Sewing machine repairs.....	2 12
1110.	Indiana Lighting Co.....	Artificial gas.....	26 37
1111.	International Boiler Comp. Co....	Boiler compound.....	19 78
1112.	Indian Refining Co.....	Oils	4 83
1113.	J. T. Johnson.....	Eggs	55 20
1114.	J. C. Jackson.....	Smithing	20 00
1115.	M. F. Kaag & Sons.....	Crockery	8 16
1116.	Lea & Febiger.....	Subscription	10 00
1117.	Morris & Company.....	Butterine	254 25
1118.	Meyer Bros. Drug Co.....	Drugs	24 93
1119.	Mayflower Mills.....	Flour	14 87
1120.	Franklin MacVeagh & Co.....	Groceries	58 83
1121.	A. H. Perfect & Co.....	Groceries	315 65
1122.	J. C. Peltier.....	Undertaking	30 00
1123.	Eurode Dry Goods Co.....	Dry goods.....	1 43
1124.	Reid, Murdoch & Co.....	Groceries	47 51
1125.	Swift & Company.....	Meats	439 51
1126.	Schwarzschild & Sulzberger.....	Meats	130 30
1127.	Sherman Bros. Co.....	Coffee	19 50
1128.	C. Tresselt & Sons.....	Flour	45 50
1129.	Western Union Telegraph Co.....	Telegrams	2 54
1130.	Ben Perley Weaver, M. D.....	Professional services.....	25 00
1131.	Wolf & Dessauer.....	Dry goods.....	34 31
1132.	Brand Stoye Co.....	Rauge repairs.....	20 75
1133.	Olds Coal Co.....	Coke	8 53
1134.	Seavey Hardware Co.....	Hardware	6 56
1135.	Anthony M. Ellering, Trustee....	Traveling expenses.....	33 25
1136.	Geo. D. Gaby, Trustee.....	Traveling expenses.....	15 00
1137.	Mary R. Harper, Trustee.....	Traveling expenses.....	2 00
1138.	James W. Sale, Trustee.....	Traveling expenses.....	4 50
1139.	D. N. Foster Furniture Co.....	Rugs	80 70
1140.	Jos. J. Brudi & Co.....	Flour	144 20
Total			\$7,646 89
Grand total.....			\$149,226 90

EXHIBIT No. 3.

*Recapitulation by Vouchers of Expenditures from Repair Fund for Fiscal
Year Ending September 30, 1911.*

October, 1910.

No.	To Whom Paid.	Character of Claim.	Amount.
1.	A. E. Carroll, Superintendent....	Payroll	\$135 00
2.	Edward M. Baltes & Co.....	Lime and cement.....	37 44
3.	Becker Paper Co.....	Roofing	5 82
4.	James B. Clow & Sons.....	Sprinkler heads.....	8 50
5.	Ft. Wayne Lumber Co.....	Lumber	8 72
6.	Ft. Wayne Oil and Supply Co....	Engineers' supplies.....	25 48
7.	Ft. Wayne Oil and Supply Co....	Plumber's supplies.....	3 11
8.	Ft. Wayne Fdry. and Mach. Co..	Castings, etc.....	45 15
9.	E. Gilmartin & Sons.....	Lumber	11 44
10.	H. M. Hooker Co.....	Paints, etc.....	4 14
11.	G. H. Krudop.....	Lumber	36 32
12.	A. W. Kintz & Son.....	Mason work.....	10 05
13.	Wm. Moellering Sons.....	Fire brick, etc.....	15 68
14.	P. and H. Supply Co.....	Plumber's supplies.....	11 76
15.	C. C. Schlatter & Co.....	Glass	40
16.	C. C. Schlatter & Co.....	Paints, nails, etc.....	147 31
17.	Seavey Hardware Co.....	Roofing	37 52
Total			\$543 84

November, 1910.

18.	A. E. Carroll, Superintendent....	Payroll	\$164 73
19.	Boerger Bros.....	Moving barn.....	140 00
20.	Dean Bros. Steam Pump Works..	Pump repairs.....	2 50
21.	Ernst A. Ehle & Sons.....	Mason work.....	17 60
22.	Federal-Huber Co.....	Valve repairs.....	10 87
23.	Ft. Wayne Builders' Supply.....	Lime	4 80
24.	H. M. Hooker Co.....	Paints	31 63
25.	Hoffman, Billings Mfg. Co.....	Valve repairs.....	1 50
26.	Wm. Moellerings' Sons.....	Paints	36 75
27.	Martin Grate Co.....	Grates	5 70
28.	National Mill Supply Co.....	Iron pipe, etc.....	14 40
29.	Philip Sinsz Co.....	Setting glass cutter.....	1 62
30.	C. C. Schlatter & Co.....	Belting and glass.....	7 93
31.	Seavey Hardware Co.....	Roof repairs.....	28 06
Total			\$468 09

December, 1910.

32.	A. E. Carroll, Superintendent....	Payroll	\$152 51
33.	Otto Blombach.....	Plastering	50 40
34.	Edward M. Baltes & Co.....	Fire clay.....	2 50
35.	James B. Clow & Sons.....	Plumbers' supplies.....	13 17
36.	Ft. Wayne Lumber Co.....	Lumber	65 17
37.	H. M. Hooker & Co.....	Paints, etc.....	39 70
38.	Hibbard, Spencer, Bartlett & Co.	Locks	19 29
39.	A. W. Kintz.....	Mason work.....	19 60
40.	Wm. Moellerings' Sons.....	Cement	6 86
41.	P. and H. Supply Co.....	Plumbers' supplies.....	79 85
42.	P. and H. Supply Co.....	Slop sinks.....	43 44

EXHIBIT No. 3—Continued.

December, 1910—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
43.	Rhinesmith & Simonson.....	Lumber	\$188 69
44.	C. C. Schlatter & Co.....	Oils, etc.....	56 58
45.	L. Wolff Mfg. Co.....	Plumbers' supplies.....	12 38
Total			\$750 14

January, 1911.

46.	A. E. Carroll, Superintendent....	Payroll	\$206 47
47.	Otto Bloombach.....	Plastering	56 75
48.	James B. Clow & Sons.....	Plumber's supplies.....	7 64
49.	Electric Appliance Co.....	Wire	10 80
50.	F. G. Gaunt Mfg. Co.....	Plumber's supplies.....	9 80
51.	E. Howard Clock Co.....	Stations	31 50
52.	A. Hattersley & Sons.....	Repairing tile floor.....	118 55
53.	Indiana Paint and Varnish Co....	Boiled oil.....	19 60
54.	Jacob Klett & Co.....	Lumber	4 20
55.	A. W. Kintz & Son.....	Mason work.....	8 70
56.	Lukenheimer Co.....	Boiler repairs.....	4 27
57.	Main Bangor Slate Co.....	Slate blackboards.....	20 63
58.	Wm. Moellerings' Sons.....	Cement, etc.....	22 89
59.	National Mill Supply Co.....	Plumber's supplies.....	1 55
60.	National Mill Supply Co.....	Plumber's supplies.....	11 03
61.	P. and H. Supply Co.....	Plumber's supplies.....	2 40
62.	P. and H. Supply Co.....	Plumber's supplies.....	11 15
63.	Patek Bros.....	Paints	23 25
64.	Rhinesmith & Simonson.....	Lumber	11 50
65.	Standard Oil Co.....	Turpentine	44 63
66.	C. C. Schlatter & Co.....	Glass	3 92
67.	Seavey Hardware Co.....	Roof repairs.....	129 17
Total			\$770 40

February, 1911.

68.	A. E. Carroll, Superintendent....	Payroll	\$171 45
69.	James B. Clow & Sons.....	Heater repairs.....	9 64
70.	Ernst A. Ehle & Sons.....	Mason work.....	20 00
71.	Ft. Wayne Fdry. and Mach. Co....	Heater repairs.....	13 85
72.	Gardener Governor Co.....	Pump repairs.....	22 50
73.	H. M. Hooker Co.....	Paint	70 50
74.	A. Hattersley & Sons.....	Floor repairs.....	9 75
75.	Hibbard, Spencer, Bartlett & Co..	Brushes	1 35
76.	Indiana Paint and Varnish Co....	Varnish, etc.....	82 90
77.	G. J. Krudop.....	Lumber	12 05
78.	D. B. Ninde.....	Sand	9 00
79.	Petterson Oven Co.....	Grates	30 00
80.	P. and H. Supply Co.....	Plumber's supplies.....	11 81
81.	C. C. Schlatter & Co.....	Roofing	24 37
Total			\$498 17

March, 1911.

82.	A. E. Carroll, Superintendent....	Payroll	\$248 70
83.	Becker Paper Co.....	Paper roofing.....	1 50
84.	James B. Clow & Sons.....	Heater repairs.....	22 38
85.	Ft. Wayne Lumber Co.....	Lumber	31 85

EXHIBIT No. 3—Continued.

March, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
86.	Ingersoll-Rand Co.....	Air compressor repairs.....	\$15 00
87.	Jones Safety Device Co.....	Saw guard.....	15 00
88.	P. and H. Supply Co.....	Pipe covering.....	26 44
89.	Seavey Hardware Co.....	Bronzing liquid.....	2 00
90.	C. C. Schlatter & Co.....	Oil, etc.....	54 21
91.	Standard Oil Co.....	Turpentine	47 39
Total			\$434 47

April, 1911.

92.	A. E. Carroll, Superintendent....	Payroll	\$238 50
93.	James B. Clow & Sons....	Plumber's supplies.....	13 50
94.	Dean Bros. Steam Pump Co.....	Pump repairs.....	6 20
95.	Ft. Wayne Fdry. and Mach. Co....	Heater repairs.....	9 85
96.	H. M. Hooker Co.....	Paints	175 95
97.	Indiana Paint and Varnish Co....	Paints	3 12
98.	Wm. Moellerings' Sons.....	Paints	4 70
99.	H. Pfeiffer & Son Co.....	Paint	4 41
100.	Protective Electric Supply Co....	Fixtures	2 01
101.	C. C. Schlatter & Co.....	Glass	2 28
102.	C. C. Schlatter & Co.....	Paint	9 12
103.	Seavey Hardware Co.....	Paint	11 69
104.	Leo Uhlfelder.....	Paint	7 00
105.	Wm. Geake.....	Cut stone work.....	3 90
Total			\$492 23

May, 1911.

106.	A. E. Carroll, Superintendent....	Payroll	\$230 00
107.	Art Mosaic and Tile Co.....	Floor repairs.....	84 20
108.	Bass Foundry and Machine Co....	Boiler repairs.....	3 65
109.	Electric Appliance Co.....	Electric wire.....	2 34
110.	Ernst A. Ehle & Son.....	Mason work.....	10 00
111.	Ft. Wayne Fdry. and Mach. Co....	Engine repairs.....	3 55
112.	Ft. Wayne Oil and Supply Co....	Plumber's supplies.....	4 92
113.	H. M. Hooker Co.....	Glass	13 76
114.	Indianapolis Paint and Color Co..	Paint	11 76
115.	Wm. Moellerings' Sons.....	Lime, etc.....	11 57
116.	National Mill Supply Co.....	Engineer's supplies.....	8 07
117.	National Mill Supply Co.....	Engineer's supplies.....	68 43
118.	P. and H. Supply Co.....	Engineer's supplies.....	16 57
119.	Protective Electric Supply Co....	Electric wire.....	7 77
120.	Seavey Hardware Co.....	Boiled oil.....	54 15
121.	C. C. Schlatter & Co.....	Glass, etc.....	10 69
122.	Sargent Paint and Color Co.....	Turpentine	14 77
123.	Western Electric Co.....	Tungstoliers	16 90
124.	John H. Welch & Sons.....	Roof repairs.....	300 00
Total			\$873 16

June, 1911.

125.	A. E. Carroll, Superintendent....	Payroll	\$228 01
126.	Ed. M. Baltes & Co.....	Cement, etc.....	17 42
127.	James B. Clow & Sons.....	Plumber's supplies.....	1 30
128.	Crane Company.....	Plumber's supplies.....	1 80

EXHIBIT No. 3—Continued.

June, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
129.	Central Foundry Co.....	Castings	\$5 22
130.	Ernst A. Ehle & Son.....	Mason work.....	16 00
131.	Ft. Wayne Electric Co.....	Electric supplies.....	1 60
132.	Ft. Wayne Lumber Co.....	Lumber	41 79
133.	Ft. Wayne Oil and Supply Co...	Plumber's supplies.....	1 25
134.	Frank Gruber Boiler Works.....	Repairing tank.....	41 49
135.	H. M. Hooker Co.....	Paints	49 50
136.	Hibbard, Spencer, Bartlett & Co..	Painters' supplies.....	1 34
137.	Indiana Paint and Varnish Co...	Painter's supplies.....	2 50
138.	Indiana Paint and Varnish Co...	Painter's supplies.....	2 33
139.	Geo. T. Johnson.....	Toilet paper fixtures.....	48 00
140.	G. H. Krudop.....	Lumber	23 52
141.	Wm. Moellerings' Sons.....	Paint brushes.....	1 63
142.	National Mill Supply Co.....	Plumber's supplies.....	65 25
143.	National Mill Supply Co.....	Plumber's supplies.....	22 01
144.	P. and H. Supply Co.....	Plumber's supplies.....	5 47
145.	P. and H. Supply Co.....	Plumber's supplies.....	2 99
146.	Protective Electric Supply Co...	Electrical supplies.....	3 99
147.	Patek Bros.....	Paints	7 75
148.	Seavey Hardware Co.....	Roof repairs.....	518 35
149.	C. C. Schlatter & Co.....	Glass, etc.....	8 19
150.	C. C. Schlatter & Co.....	Glass, etc.....	1 23
151.	Standard Oil Co.....	Turpentine	3 13
152.	Clem Junge.....	Painting	140 00
Total			\$1,263 06

July, 1911.

153.	A. E. Carroll, Superintendent....	Payroll	\$183 61
154.	Ed. M. Baltes & Co.....	Cement	1 60
155.	Bass Foundry and Machine Co....	Boiler repairs.....	17 50
156.	Canfield Oil Co.....	Turpentine	16 00
157.	Crane Company.....	Pipe	7 84
158.	Ft. Wayne Oil and Supply Co....	Pulleys	3 93
159.	Ft. Wayne Oil and Supply Co....	Pipe	50 26
160.	F. G. Gaunt Mfg. Co.....	Valve repairs.....	4 35
161.	H. M. Hooker Co.....	Paint	144 54
162.	Clem Junge.....	Painting	330 00
163.	Wm. Moellerings' Sons.....	Paint	2 26
164.	National Mill Supply Co.....	Plumber's supplies.....	7 65
165.	Seavey Hardware Co.....	Hardware	5 44
166.	C. C. Schlatter & Co.....	Door knobs.....	24 99
167.	Henry Vogt Machine Co.....	Engine repairs.....	18 20
168.	John H. Welch & Sons.....	Roof repairing.....	34 62
169.	Protective Electric Supply Co....	Electrical supplies.....	32 16
Total			\$884 95

August, 1911.

170.	A. E. Carroll, Superintendent....	Payroll	\$155 00
171.	American Laundry Machine Co...	Washer repairs.....	43 00
172.	Bass Foundry and Machine Co....	Boiler repairs.....	6 80
173.	W. T. Buckles.....	Painting	11 00
174.	The Bashlin Co.....	Valve repairs.....	2 25
175.	Ed. M. Baltes & Co.....	Cement	1 60
176.	Consolidated Engineering Co....	Heater repairs.....	6 00

EXHIBIT No. 3—Continued.

August, 1911—Continued.

No.	To Whom Paid.	Character of Claim.	Amount.
177.	Ft. Wayne Oil and Supply Co....	Plumber's supplies.....	\$19 99
178.	Ft. Wayne Lumber Co.....	Lumber.....	25 48
179.	F. G. Gaunt Mfg. Co.....	Valve repairs.....	9 00
180.	Gardener Governor Co.....	Pump repairs.....	2 88
181.	H. M. Hooker Co.....	Paint.....	48 55
182.	National Steam Pump Co.....	Pump repairs.....	6 50
183.	National Mill Supply Co.....	Plumber's supplies.....	3 19
184.	Seavey Hardware Co.....	Roof repairs.....	7 25
185.	Standard Oil Co.....	Turpentine.....	27 04
186.	L. Wolff Mfg. Co.....	Valve repairs.....	9 00
Total			\$384 53

September, 1911.

187.	A. E. Carroll, Superintendent....	Payroll	\$111 00
188.	Ed. M. Baltus & Co.....	Cement	2 90
189.	Crane Company.....	Fittings	14 33
190.	Ft. Wayne Oil and Supply Co....	Paints	4 07
191.	Indiana Paint and Varnish Co....	Paints	3 10
192.	Protective Electric Supply Co....	Supplies	1 49
Total			\$136 89
Grand total.....			\$7,499 87

EXHIBIT No. 4.

Recapitulation by Vouchers of Expenditures from Cottage for Adult Female Fund for Fiscal Year Ending September 30, 1911.

October, 1910.

No.	To Whom Paid.	Character of Claim.	Amount.
60.	A. W. Kintz & Son.....	Lumber, etc.....	\$26 50
61.	Elmer Giant.....	Team work.....	26 00
62.	Joseph Hobson.....	Team work.....	40 00
63.	N. Pierson.....	Team work.....	27 00
64.	Jos. P. Martin & Co.....	Plumbing contract.....	900 00
65.	Chas. Wermuth.....	General contract.....	5,247 00
Total			\$6,266 50

November, 1910.

66.	F. D. Cronkhite.....	Work with team.....	\$28 00
67.	Joseph Hobson.....	Work with team.....	30 00
68.	N. Pierson.....	Work with team.....	31 00
69.	Wm. Geake.....	Cut stone contract.....	500 00
Total			\$589 00

EXHIBIT No. 4—Continued.

December, 1910.

No.	To Whom Paid.	Character of Claim.	Amount.
70.	Chas. Wermuth.....	General contract.....	\$2,000 00
71.	Protective Electric Supply Co....	Wire, etc.....	25 45
72.	Chas. Wermuth.....	General contract.....	2,250 00
Total			\$4,275 45

January, 1911.

73.	A. E. Carroll, Superintendent....	Payroll	\$90 00
74.	Seavey Hardware Co.....	Hardware	427 04
75.	Robert Spice.....	Heating contract.....	405 00
76.	Chas. Wermuth.....	General contract.....	4,500 00
77.	J. C. Young.....	Team work.....	15 00
Total			\$5,437 04

February, 1911.

78.	A. E. Carroll, Superintendent....	Payroll	\$90 00
79.	C. L. Greeno Co.....	Husks	25 23
80.	J. H. Hibben Dry Goods Co.....	Blankets	5 10
81.	H. M. Hooker Co.....	Mirrors	13 50
82.	A. W. Kintz & Son.....	Mason work and sewer.....	161 80
83.	National Mill Supply Co.....	Soil pipe.....	15 64
84.	Protective Electric Supply Co....	Wire	12 48
85.	Trentman Supply Co.....	Sewer pipe.....	33 76
86.	Robert Spice.....	Heating contract.....	270 00
87.	Mahurin & Mahurin.....	Architect fees.....	200 00
88.	Chas. Wermuth.....	General contract.....	1,620 00
Total			\$2,447 51

March, 1911.

89.	Geo. DeWald Co.....	Dry goods.....	\$113 91
90.	Geo. DeWald Co.....	Dry goods.....	236 97
91.	Fox Bros. Co.....	Twine	12 30
92.	E. Gilmartin & Sons.....	Lumber	108 00
93.	Leshner Warner Dry Goods Co....	Dry goods.....	483 40
94.	Mandel Bros.....	Hair	160 00
95.	Art Mosaic and Tile Co.....	Cement floors.....	450 00
96.	J. P. Martin & Co.....	Plumbing contract.....	450 00
97.	Robert Spice.....	Heating contract.....	270 00
98.	Chas. Wermuth.....	General contract.....	2,700 00
Total			\$4,984 58

April, 1911.

99.	Geo. DeWald Co.....	Dry goods.....	\$447 18
100.	Ft. Wayne Electric Works.....	Transformer	68 85
101.	Indiana Furniture Co.....	Shade rollers.....	21 00
102.	Seavey Hardware Co.....	Refrigerator	162 80
103.	J. P. Martin & Co.....	Plumbing contract.....	1,080 00
104.	Robert Spice.....	Heating contract.....	450 00
105.	Chas. Wermuth.....	General contract.....	1,980 00
106.	Wm. Geake.....	Cut stone contract.....	701 82
Total			\$4,911 65

EXHIBIT No. 4—Continued.

May, 1911.

<i>No.</i>	<i>To Whom Paid.</i>	<i>Character of Claim.</i>	<i>Amount.</i>
107.	Art Mosaic and Tile Co.....	Terrazzo floors.....	\$1,834 20
108.	F. Bissell Co.....	Porcelain shades.....	4 71
109.	Geo. DeWald Co.....	Napkin crash.....	45 58
110.	Fox Bros. Co.....	Iron beds.....	525 60
111.	E. Howard Clock Co.....	Watchman's stations.....	50 00
112.	J. H. Hibben Dry Goods Co....	Dry goods.....	20 00
113.	Hygienic Sheet Co.....	Bedding.....	49 68
114.	Protective Electric Supply Co...	Electrical supplies.....	43 84
115.	Robert Spice.....	Heating contract.....	900 00
116.	Western Electric Co.....	Electrical supplies.....	136 17
Total			\$3,609 78

June, 1911.

117.	J. P. Martin & Co.....	Plumbing contract.....	\$300 00
118.	Seavey Hardware Co.....	Hardware	29 32
119.	Wrought Iron Range Co.....	Range	185 00
120.	Chas. Wermuth.....	General contract.....	1,500 00
Total			\$2,014 32

July, 1911.

121.	Indiana Reformatory.....	Furniture	\$114 00
122.	Seavey Hardware Co.....	Hardware	47 44
123.	J. P. Martin & Co.....	Plumbing contract.....	273 40
Total			\$434 84

August, 1911.

124.	Geo. DeWald Co.....	Quilts	\$12 94
125.	Fox Bros. Co.....	Beds	48 50
126.	J. P. Martin & Co.....	Plumbing contract.....	6 30
127.	Chas. Wermuth.....	General contract.....	3,000 00
128.	Art Mosaic and Tile Co.....	Terrazzo floors.....	179 32
Total			\$3,247 06

September, 1911.

129.	H. C. Hitzemann.....	Sewing machine.....	\$26 10
130.	Wolf & Dessauer.....	Rugs	103 50
131.	Mahurin & Mahurin.....	Architect's fees.....	304 59
132.	Robert Spice.....	Heating contract.....	1,128 39
133.	Chas. Wermuth.....	General contract.....	919 15
134.	Indiana Reformatory.....	Furniture	12 00
Total			\$2,493 75
Grand total.....			\$40,711 46

INDUSTRIES.

STATEMENT SHOWING WORK OF INDUSTRIES.

Dressmaking Department.

Aprons, calico.....	2
Aprons, waiter.....	3
Aprons, gingham.....	62
Costumes	19
Dresses	679
Drawers	476
Gowns	378
Skirts	331
Shrouds	7
Uniforms	16
Underwaists'	54
Waists	39
Total number pieces work.....	2,066

Sewing and Mending Department.

Aprons, white.....	9
Aprons, denim.....	216
Bibs and napkins.....	667
Barrel and plate covers.....	24
Bedpads	3
Caps, skull.....	30
Clothes sacks.....	146
Comforters	135
Curtains, pairs.....	26
Curtains, shelf.....	26
Curtains, sash.....	119
Napkins, table.....	1,281
Napkins, toilet.....	232
Neckties	92
Pillow-cases	1,407
Sheets	2,065
Shirts	1,049
Straight sleeves.....	48
Towels and scarfs.....	3,371
Washcloths	115
Shirtwaists	4
Total number pieces work.....	11,065

Sewing Room, Sunset

Aprons	4
Bibs and napkins.....	307
Breadcloths	5
Capes	10
Dresses	650
Drawers	79
Gowns	384
Napkins, table.....	172
Napkins, toilet.....	92
Pillow-cases	313
Skirts	239
Sheets	220
Shrouds	4
Towels and scarfs	458
Union suits.....	205
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Total number pieces work.....	3,142

Sewing Room, Harper Lodge.

Aprons, denim.....	194
Aprons, calico.....	10
Bibs and napkins.....	29
Comforters	100
Curtains, sash.....	5
Clothes sacks.....	9
Dresses	270
Drawers	96
Gowns	54
Napkins, table.....	432
Napkins, toilet.....	544
Pillow-cases	33
Skirts	53
Sheets	134
Shrouds	4
Sleeves, restraining.....	12
Tablecloths	98
Towels and scarfs.....	1,851
Union suits	18
Underwaists	31
<hr/>	
Total number pieces work.....	3,977

Tailoring Department.

Combination suits.....	212
Coats	110
Caps	6
Costumes	5
Drawers	183

Tailoring Department—Continued.

Gowns	840
Jackets, denim.....	83
Jackets, duck.....	11
Jackets, straight.....	3
Jackets, white.....	7
Overalls, denim.....	726
Overalls, duck.....	17
Pants	324
Restraining sleeves	5
Suits	1
Undershirts	257
Vests	3
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Total number pieces work.....	2,793

Shoemaking Department.

Shoes, new, pairs.....	1,100
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Bakery.

Bread, wheat, pounds.....	432,189
Bread, corn, pounds.....	17,405
Bread, ginger, pounds.....	6,208
Buns, dozen.....	6,822
Cake, pounds.....	9,134
Coffee cake, pounds.....	13,087
Ginger snaps, pounds.....	7,966
Cookies, dozen.....	4,358
Pies	8,176

FARM AND GARDEN PRODUCTS.

October 1, 1910, to September 30, 1911.

PRODUCT.	Quantity Raised.	Estimated Value.	ESTIMATED VALUE OF PRODUCTS USED DURING YEAR.			
			In Kitchen.	In Out-door Departments.	In Stock.	Sold.
Apples.....	959 $\frac{3}{4}$ bushels.....	\$479 88	\$329 88		\$150 00	
Asparagus.....	614 pounds.....	61 40	61 40			
Beans, string.....	414 bushels.....	208 10	208 10			
Beets.....	224 $\frac{3}{4}$ bushels.....	89 90	77 90		12 00	
Blackberries.....	765 quarts.....	76 50	76 50			
Beans, lima.....	3 bushels.....	1 80	1 80			
Cabbage.....	18,834 head.....	565 02	553 02		12 00	
Carrots.....	137 $\frac{1}{4}$ bushels.....	41 18	41 18			
Cauliflower.....	310 head.....	15 50	15 50			
Cherries.....	6,497 quarts.....	454 79	454 79			
Corn.....	5,310 dozen.....	424 80	424 80			
Celery.....	3,896 stalks.....	58 45	58 45			
Cucumbers.....	46,004 only.....	46 26	46 26			
Currants.....	98 quarts.....	9 80	9 80			
Egg plant.....	311 only.....	15 55	15 55			
Gooseberries.....	1,052 quarts.....	63 12	63 12			
Grapes.....	9,008 pounds.....	180 16	180 16			
Lettuce.....	1,005 pounds.....	77 17	77 17			
Muskmelons.....	19,050 only.....	897 74	897 74			
Onions.....	8,737 dozen.....	262 11	262 11			
Onions.....	56 bushels.....	35 25	35 25			
Parsnips.....	546 bushels.....	136 50	136 50			
Pears.....	192 $\frac{1}{2}$ bushels.....	210 38	110 38		100 00	
Peaches.....	236 $\frac{1}{2}$ bushels.....	354 75	354 75			
Plums.....	18 $\frac{1}{2}$ bushels.....	23 14	23 14			
Peas.....	67 $\frac{3}{4}$ bushels.....	23 32	23 32			
Peppers.....	160 dozen.....	11 20	11 20			
Potatoes.....	2,242 $\frac{1}{2}$ bushels.....	938 23	938 23			
Pumpkins.....	187 only.....	9 35	9 35			
Rhubarb.....	22,336 pounds.....	111 69	111 69			
Radishes.....	3,465 dozen.....	103 95	103 95			
Raspberries.....	258 quarts.....	25 80	25 80			
Spinach.....	2,760 pounds.....	55 20	55 20			
Squash.....	2,853 only.....	142 65	142 65			
Strawberries.....	369 quarts.....	25 83	25 83			
Tomatoes.....	612 $\frac{1}{4}$ bushels.....	306 14	306 14			
Turnips.....	192 $\frac{1}{4}$ bushels.....	38 45	38 45			
Watermelons.....	449 only.....	44 90	44 90			
Beef, fresh.....	1,284 pounds.....	97 74	97 74			
Chickens.....	1,095 $\frac{1}{2}$ pounds.....	145 75	145 75			
Chickens.....	82 only.....	35 30	35 30			
Eggs.....	715 $\frac{1}{2}$ dozen.....	120 10	120 10			
Liver.....	452 pounds.....	26 26	26 26			
Milk.....	318,085 pounds.....	6,361 70	6,361 70			
Pork, fresh.....	37,701 pounds.....	3,280 27	3,280 27			
Turkey.....	48 pounds.....	9 84	9 84			
Veal.....	2,429 pounds.....	207 84	207 84			
Hides.....		58 44				\$58 44
Calves.....	13 only.....	82 00				82 00
Male hog.....	1 only.....	20 00				20 00
Premium on fruit exhibit at Fair.....		5 75				5 75
Hay, timothy.....	130,560 pounds.....	848 64	\$325 00	\$523 64		
Hay, mixed.....	70 tons.....	910 00	260 00	650 00		
Hay, alfalfa.....	50 tons.....	600 00	300 00	300 00		
Straw.....	20 tons.....	100 00	25 00	75 00		
Cow beets.....	20 tons.....	80 00	40 00	40 00		
Green fodder.....	10 tons.....	35 00	35 00			
Corn and fodder.....	2,198 shocks.....	2,637 60			2,637 60	
Ensilage.....	250 tons.....	750 00			750 00	
Oats.....	1,733 bushels.....	779 85		284 85	495 00	
Total.....		\$23,818 04	\$16,636 76	\$1,269 85	\$5,745 24	\$166 19

Estimated cost of production..... \$12,945.23

LIST OF OFFICERS AND EMPLOYEES.

SEPTEMBER 30, 1911.

<i>Name and Position.</i>	<i>Wages.</i>
A. E. Carroll, superintendent.....	\$250 00
Mrs. A. M. Wheaton, matron.....	50 00
Thos. L. Taylor, resident physician.....	100 00
Nellie Hanaway, physician.....	60 00
Earl Robbins, dental interne.....	25 00
M. Druckemiller, chief clerk.....	100 00
Leone P. Marsh, superintendent's secretary.....	50 00
*Jessie Lindsey, bookkeeper's assistant.....	40 00
Margaret Townsend, record clerk.....	25 00
Carey Weatherholt, night clerk.....	30 00
*Frank Anglin, storekeeper.....	50 00
Franke Hamilton, school principal.....	50 00
Mrs. M. A. Summerbell, teacher.....	40 00
Mrs. M. Kimble, teacher.....	40 00
Marjorie Smith, teacher.....	40 00
Marie Wintermote, teacher.....	40 00
Grace Thompson, teacher.....	40 00
Marie E. Emge, teacher.....	40 00
Ada Banks, teacher.....	40 00
Ina M. Matthews, teacher.....	40 00
Franke Jones, teacher.....	30 00
Gertrude Harlow, teacher.....	30 00
Grace M. Leonard, teacher.....	30 00
Elizabeth E. McOwan, teacher.....	30 00
Maud E. Winn, teacher.....	40 00
Pearl Baldwin, teacher.....	40 00
*G. J. Thompson, band director.....	45 00
*F. J. Reineke, orchestra leader.....	45 00
Harry Thompson, supervisor.....	50 00
Thos. F. Pritchett, attendant.....	20 00
Mrs. Anna Pritchett, attendant.....	15 00
Everett Skinner, attendant.....	25 00
Mrs. Everett Skinner, attendant.....	20 00
L. M. Hook, attendant.....	25 00
Mrs. L. M. Hook, attendant.....	20 00
Herbert Gray, attendant.....	30 00
J. F. Galloway, attendant.....	25 00
Mrs. Lillie Galloway, attendant.....	20 00
Jesse E. Morgan, attendant.....	25 00
Raymond Smoots, night attendant.....	25 00
Mabelle O. Noble, supervisoress.....	35 00
Edith Clark, attendant.....	20 00
Maud Rupert, attendant.....	15 00

LIST OF OFFICERS AND EMPLOYES—Continued.

<i>Name and Position.</i>	<i>Wages.</i>
Josie Steele, attendant.....	\$18 00
Lena Brockmeier, attendant.....	20 00
Dale Cowdry, attendant.....	20 00
Mrs. S. J. Greenewald, attendant.....	15 00
Blanche Everdon, attendant.....	18 00
Dott Whiteneck, attendant.....	20 00
Mrs. B. McConahy, attendant.....	20 00
Eula Dilley, night attendant.....	25 00
Ella McCormick, supervisoress.....	35 00
Edna Hittner, attendant.....	20 00
Alma Stromeier, attendant.....	18 00
Agnes Gillie, attendant.....	22 50
Nellie Miller, attendant.....	15 00
Emma Treadway, attendant.....	22 50
Mrs. Ora May, attendant.....	22 50
Eva Pottmeyer, attendant.....	22 50
Rose Cochran, night attendant.....	25 00
Alice Wilson, supervisoress.....	35 00
Geo. Brown, attendant.....	20 00
Loyd Poindexter, attendant.....	20 00
Nancie M. Alford, attendant.....	15 00
Mrs. B. Huddleston, attendant.....	15 00
Guy Horn, attendant.....	30 00
Roy Suddarth, attendant.....	25 00
Arthur H. Morgan, attendant.....	22 50
Bruce H. Beam, attendant.....	20 00
Loda McFall, attendant.....	20 00
Arthur Bayh, night attendant.....	25 00
Thomas R. Little, attendant.....	25 00
Belle McTavish, supervisoress.....	35 00
Caroline Wilson, attendant.....	20 00
Emma Cummings, attendant.....	15 00
Effie Sanders, attendant.....	20 00
Mary V. Buckley, attendant.....	15 00
Amanda Weesner, attendant.....	22 50
Mattie Riggle, attendant.....	18 00
Mrs. M. Clippenger, attendant.....	25 00
Ola Hettmansperger, attendant.....	22 50
Verda Watkins, nurse.....	22 50
Mrs. Alice Brown, domestic.....	15 00
Ida M. Shirey, domestic.....	25 00
Wm. J. Smith, supervisor.....	60 00
J. R. Hoffman, attendant.....	25 00
Coleman Campbell, attendant.....	25 00
D. E. Flemming, attendant.....	22 50
Ray R. Stewart, attendant.....	25 00
Oscar R. Hook, attendant.....	25 00

LIST OF OFFICERS AND EMPLOYEES—Continued.

<i>Name and Position.</i>	<i>Wages.</i>
Dora Corbin, cook.....	\$25 00
Kittie Hargrave, cook.....	25 00
Ida E. Coolman, cook.....	25 00
Effie Collins, cook.....	25 00
Meda Greene, cook.....	25 00
Mary A. Bolar, cook.....	25 00
Ella Caston, cook.....	25 00
Mrs. Harry Thompson, housekeeper.....	25 00
Bridgie Clifford, housekeeper.....	25 00
Mildred Polk, domestic.....	20 00
Nellie Christle, domestic.....	20 00
Roxie Heishman, domestic.....	20 00
Annie Gormley, domestic.....	20 00
Mrs. Veva Tabler, domestic.....	18 00
Susan Carroll, domestic.....	20 00
Nina Trobaugh, domestic.....	20 00
Jennie Weatherholt, domestic.....	20 00
Zetta Applegate, domestic.....	18 00
Mabel Mount, domestic.....	20 00
Edna Stouder, domestic.....	20 00
Mrs. M. Pullin, domestic.....	20 00
Ethel Baker, domestic.....	20 00
Myrtle Stewart, domestic.....	20 00
Mrs. W. J. Smith, domestic.....	20 00
Mrs. E. H. VanWormer, domestic.....	18 00
Mrs. M. A. McLaughlin, domestic.....	20 00
Emma Oldham, domestic.....	25 00
*H. K. Malick, night watchman.....	45 00
A. McClure, janitor.....	25 00
*Clifford N. Robertson, butcher.....	50 00
*F. B. Miller, laundryman.....	40 00
Kate Gormley, laundress.....	35 00
Anita L. Coughlin, laundress.....	25 00
Nellie Hunter, laundress.....	18 00
Hallie Heishman, laundress.....	18 00
Maggie Snapp, laundress.....	18 00
*M. Q. Campbell, outside overseer.....	50 00
Adolphus Throgmorton, barn man.....	25 00
Albert G. Miller, deliveryman.....	20 00
*Edward Hobson, laborer.....	35 00
*James Wesson, laborer.....	30 00
*J. F. Wilken, florist.....	60 00
Albert G. Baker, gardener.....	25 00
Daniel Rehm, gardener.....	30 00
Phillip Bouillon, gardener.....	22 50
Thos. P. Brown, gardener.....	20 00
Vernon B. Caine, night watchman.....	30 00

LIST OF OFFICERS AND EMPLOYES—Continued.

<i>Name and Position.</i>	<i>Wages.</i>
*John Dickson, farm manager.....	\$75 00
Morris Pullin, gardener.....	35 00
Ora Richards, horticulturist.....	25 00
E. H. VanWormer, dairyman.....	35 00
*J. E. Edwards, laborer.....	35 00
W. H. Brown, teamster.....	25 00
Albert Shie, teamster.....	25 00
*A. Heinzelman, baker.....	60 00
*Henry Meurer, upholsterer.....	60 00
*Fred Koenig, tailor.....	60 00
*Fred Tilbury, carpenter.....	60 00
*N. B. Holdsworth, shoemaker.....	60 00
Rose Murphy, seamstress.....	22 50
Minnie Franks, seamstress.....	22 50
Augusta Hopkins, seamstress.....	22 50
Anna Brown, seamstress.....	22 50
*Lew DeHaven, chief engineer.....	125 00
G. Beckstein, engineer.....	50 00
Robert Dedrick, engineer.....	50 00
Russell L. Kime, plumber.....	25 00
G. Kammeyer, fireman.....	30 00
Chas. Dunfee, fireman.....	30 00
Wm. White, fireman.....	30 00
John A. Cox, plumber.....	40 00
*Leon Miller, electrician.....	60 00
E. Valentine, carpenter.....	50 00
Seth Roberts, painter.....	40 00
Jack Hayre, plumber.....	30 00
Martha Courtright, nurse.....	22 50
Mrs. Lillian Terry, cook.....	25 00
Mrs. Clara Little, attendant.....	15 00
Ethel Mathers, domestic.....	15 00
Edna Gore, domestic.....	15 00

Note: All officers and employes are furnished board, room and laundry, excepting those marked (*), who receive meals only.

INVENTORY.

Real estate, 564.42 acres.....	\$114,727 79
Buildings	590,712 31
Equipment	93,483 97
Total	\$798,924 07

LAW GOVERNING ADMISSIONS TO THE INDIANA SCHOOL FOR FEEBLE-MINDED YOUTH.

(H. 489. Approved March 4, 1911.)

SCHOOL FOR FEEBLE-MINDED — ADMISSION OF IN- MATES.

Section 1. Be it enacted by the General Assembly of the State of Indiana, That hereafter there shall be received into the Indiana School for Feeble-Minded Youth, subject to such rules and regulations as the board of trustees of said institution may adopt, feeble-minded or idiotic children between the ages of six and sixteen years; and feeble-minded women between the ages of sixteen and forty-five years, who are not pregnant or helpless, and who are not afflicted with any contagious or communicable disease.

APPLICATION—HOW MADE.

Sec. 2. Application for the admission of a child between the ages of six and sixteen years shall be made to the board of trustees of said school with the approval of the board of county commissioners of the county wherein such child has a legal settlement, and in the following manner: First, by the father, if the father and mother are living together; second, if the father and mother are not living together, then by the one having custody of the child; third, by a guardian duly appointed; fourth, by the superintendent of any county poor asylum, or by the person having the management of any orphanage or other institution where children are cared for. Under items 3 and 4, consent of parents, if living, is not required. In the case of adult females between the ages of 16 and 45 years, any person may file in the office of the clerk of the circuit court of any county, his certified petition stating that some woman (naming her) of said county is not being or cannot be properly maintained or cared for by those who have her in charge. That such woman is a feeble-minded woman; that she is over sixteen (16) and under forty-five (45) years of age; that she is not insane; that she is not pregnant; that she is idiotic or feeble-minded; that she is in good bodily health; that she is not helpless; that she is not afflicted with any chronic or contagious disease; that she is a menace to society; that she is a legal resident

of the State and county where the application is filed; together with such other statements as may be necessary to show that she is a proper person to be admitted to said department of said institution, and that her admission thereto would be in conformity to the rules and regulations established by the board of trustees of said institution for the admission and care of such person.

ADULT WOMEN—METHOD FOR ADMISSION.

Sec. 3. Hereafter, no adult woman shall be admitted into the Indiana School for Feeble-Minded Youth unless recommended thereto by the circuit court of the county in which such person has a legal settlement. Upon the filing of an application or a petition in the office of the clerk of the circuit court of the county in which such applicant has a legal settlement, by the proper person, as designated in Section 2 of this act, the clerk of said court shall issue a summons to such person named in said application or petition, requiring her to be and appear before said court, or the judge thereof, at some time to be fixed by said clerk, not more than ten days thereafter, and shall bring said matter at once to the attention of the judge of said court. That the judge of said court shall, as soon as convenient, pass upon said application or petition, first having ascertained that said person has been served with notice of the filing thereof, and that she is present in court, or that, having had reasonable notice, she is unable to attend the hearing of said matter; and that it shall be the duty of said court to examine such witnesses (among whom shall be at least one physician) as may be necessary to prove the truth or falsity of the statements in said application or petition. And if the court finds that each and all of the allegations contained in said application or petition are true, and that said person is a proper person to be cared for in said institution, it shall be its duty to make an order committing the care and custody of said person to said institution. And it shall be the duty of the clerk of said court to make a certified copy of said application or petition, and of the finding and judgment of said court, and transmit the same, together with a statement of such facts as can be ascertained concerning the personal and family history of such person, to the superintendent of said institution, at Fort Wayne, Indiana. The costs of said proceedings shall be allowed and paid by the board of county commissioners of said county.

SUPERINTENDENT—DUTIES AS TO ADMISSION—CLOTHING.

Sec. 4. Upon receiving such order of commitment it shall be the duty of the superintendent of said institution, at once, if there is room for any more inmates, or as soon thereafter as there shall be room for such person in said institution, to notify the clerk of said court that such person will be received in said institution. That with said notice, said superintendent shall send a list of such clothing as shall be prescribed by the board of trustees of said institution, and a blank form of certificate of health and freedom of exposure to contagious disease at such time. In case the parent or custodian of such person shall be financially unable to furnish the clothing as required, the said clerk shall procure such clothing at a cost not to exceed twenty dollars (\$20) and the payment for the same shall be made out of the county treasury upon the certificate of the clerk and order of the county auditor.

CONVEYING INMATES—EXPENSE.

Sec. 5. Upon receiving notice that such person can be admitted to such institution, the clerk shall order the parent, custodian or applicant to convey such person to said institution without expense to the institution or the county. In case such parent, custodian or applicant is wholly and financially unable to bear such expense, said clerk shall issue a warrant to the sheriff, who shall convey said person to said institution in the same manner and in accordance with the same forms as are now provided by law for the transfer of patients to insane hospitals, so far as they are applicable: *Provided*, That no woman shall be conveyed to said institution by the sheriff except she be in the care of or accompanied by a woman.

JUDGE OF CIRCUIT COURT—DUTIES.

Sec. 6. The judge of the circuit court in approving an application or petition for the admission of an adult female between the ages of 16 and 45 years for commitment to the institution, shall ascertain whether or not such person has an estate of sufficient value, or parent or parents of sufficient ability to defray the expense, in whole or in part, of supporting such adult female in said institution. The judge of the circuit court shall require from the parent, guardian or legal custodian of such adult female, affidavits giving in detail, the value of all real estate and personal property owned by either parent or held in trust by guardian or other person, for such adult female.

TRUSTEES—DUTIES—MAINTENANCE FEE.

Sec. 7. The board of trustees of said institution, in accepting the commitment for the admission of any adult female as an inmate of said institution, shall fix the amount, if any, which shall be paid for the support of such person named in the commitment, according to the ability of the parents or parent of such person, or according to the value of such committed person's estate, if any, and shall require payment for such support, so far as there may be ability to pay, as a condition to the admission or retention of said person: *Provided*, The amount charged shall not exceed \$150 per annum, which amount shall be payable to the superintendent of said institution, quarterly in advance. Said amount may at any time be changed by said board of trustees, according to their information concerning said means of support. Immediately upon the taking effect of the provisions of this act, the board of trustees shall require the parents or guardians of all committed adult women now in the said institution to file with said board, a sworn financial statement in the manner and form as provided in Section 6 of this act. Upon the receipt of such affidavit, it shall be the duty of said board to fix the amount, if any, that shall be paid for the support of such person, under the provisions of this act.

CHILDREN—CONVEYING AND CLOTHING.

Sec. 8. In case the parents of a child between the ages of six and sixteen years are wholly unable to bear the expense of furnishing the clothing required by the rules of the board of trustees of said school, or of furnishing the money for the transportation of such child to said school, it shall be the duty of the county from which the child is sent to bear such cost, in the manner provided for adult females in Sections 4 and 5 of this act.

REPEAL.

Sec. 9. All laws or parts of laws in conflict with the provisions of this act are hereby repealed.

EMERGENCY.

Sec. 10. Whereas, an emergency exists for the immediate taking effect of this act, it shall be in full force from and after its passage.

STATE OF INDIANA

SIXTH ANNUAL REPORT

OF THE

RAILROAD COMMISSION
OF INDIANA

1911

To the Governor

INDIANAPOLIS :

WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING
1912

THE STATE OF INDIANA,
EXECUTIVE DEPARTMENT,
FEBRUARY 3, 1912.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,
INDIANAPOLIS, February 8, 1912.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,
Auditor of State.

FEBRUARY 19, 1912.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,
Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, February 19, 1912.

L. G. ELLINGHAM,
Secretary of State.

Received the within report and delivered to the printer February 19, 1912.

ED. D. DONNELL,
Clerk Printing Board.

STATE OF INDIANA.

RAILROAD COMMISSIONERS.

William J. Wood, Evansville.....Chairman
John F. McClure, Anderson.....Commissioner
Frank E. Payne, Indianapolis.....Commissioner

JOSEPH L. REILEY, Secretary.

M. T. BRADY, Clerk.

J. B. McNEELY, Tariff Clerk.

H. O. GARMAN, Consulting Engineer (Purdue University).

J. M. SCOTT, Chief Inspector.

DAVID E. MATTHEWS, Inspector.

HENRY ZINK, Inspector.

MYRTLE M. STOUT, Stenographer.

ENOLA HARRIS, Stenographer.

RITA M. METCALF, Stenographer.

Office Room, 84 State House.

Tariff Department, Room 85 State House.

Chairman's Room, 83 State House.

Commissioners' Room, 85 State House.

Inspectors' Room, 81 State House.

SIXTH ANNUAL REPORT

OF THE

Railroad Commission of Indiana, 1911.

INDIANAPOLIS, INDIANA, January 1, 1912.

To the HON. THOMAS R. MARSHALL, Governor of Indiana:

We respectfully submit the Sixth Annual Report of the Railroad Commission of Indiana.

As you understand, the work done by this Commission is legislative in character, and hence it is proper that the General Assembly of the State which has vested this administrative body with a portion of its power should have any suggestion or assistance in legislation affecting the railroads that members of the Commission can give. Indeed, when it is observed that railroad attorneys and representatives crowd the legislative lobbies, appear before the committees and constantly resist legislation, it seems to be necessary that the other side should be fairly presented. It is true that if the just consequences should be, as happened during the last session of the Assembly, the addition of strong regulative laws to enactments then subsisting, the customary outcry of restrictive legislation will be heard. But on the other hand is the fixed purpose of the people of the State to make railroad regulation efficient; and to meet with powerful laws the constant, untiring effort of the corporations to have the courts destroy by construction the clear intention of the assemblies.

We report to you our activities in this behalf. More than thirty bills were passed affecting the carriers. Not all of these were suggested or recommended or pressed by this Commission, but some of the most important were proposed and formulated by us and were passed by the Assembly on our recommendation. We mention the Block Signal Act, Reports of Accidents by Wire, Enforcement of Commission's Orders by Mandamus, Amendment of Safety Appliance Act, Act with Reference to Misquotation of Rates, Act Allowing Claims to be Presented to the Commission and Certified

to the Courts, Suspension of Increased Rates, Regulation of Wire Construction over Railroad Rights of Way, Highway Crossing Signs, Adequate Depot Acts and Extension of the Time for Orders of the Commission to Run. The subjects of these acts carry conviction as to their benefits, and yet during the session and afterwards there were a number of railroad officials absurdly protesting against them, as if these acts of the Assembly were not in the line of necessary evolution of sane and efficient State regulation. It is not difficult to foresee that as practical questions arise hereafter Railroad Commissions will seek their proper solution in further legislation. Indeed, it is not too much to assert that monopoly would not be permitted to continue at all unless State control supervenes, and that both the success and necessity of monopoly will combine necessarily to extend government control probably to all public service corporations.

The difficult and delicate constructive duty of putting these new acts into effect and of molding their provisions into the standing column of affairs has been quite a large part of the work of this Commission during the past year.

Our ordinary labors have largely increased. By way of comparison we note that the Second District Public Service Commission of New York in its annual report for 1911 states that during the year it had 2,321 propositions presented to it. Including our formal and informal cases, inspection cases and traffic department cases, all matters of record, this Commission has considered during the year 3,171 propositions. All of these are either disposed of or advanced as far as possible towards a final determination. In addition, there are accident reports and investigations and interlocking cases, amounting, probably, to three or four hundred. It is apparent that all of our time and the best efforts of Commissioners and employes are required to do this arduous labor.

We report to you, especially, the work of the Commission in the Minimum Rate Case. The railroad companies advanced minimum rates about forty per cent. We suspended the tariffs and upon final consideration suspended the tariffs indefinitely, putting an end for the next five years in this State to any attempt by the railroad companies to advance the minimum rate. No suit was brought to set our action aside, hence the judgment of the Commission will stand during the time prescribed.

Another important matter during the year was the inquiry into express rates, which has just been concluded, with the reduction of merchandise rates amounting from fifteen to twenty per cent. This

we have done by means of the proper adjustment of the graduate scale. We are under the impression that, owing to the general insistence throughout the country that these rates shall be put upon a better basis than they are now, the express companies will not litigate the order of the Commission but will put it into effect as they have done the Maximum Express Rate Act in the State of Michigan.

The work done by the Commission to expedite the movement of coal during the recent long continued cold spell may be reported especially, in order to teach a lesson regarding this matter. In 1907 this Commission attempted to provide for just such emergencies by drafting and pressing through the Legislature the act known as the "Shippers' Bill." This law requires the carriers to provide sufficient motive power and cars for the transportation of all business offered to them. It requires them especially to remove carload freight and less than carload freight at a speed of fifty miles a day and prescribes penalties of \$5 a day for delays of any cars and a certain percentage as to delays of L. C. L. freight and authorizes the shipper to deduct the amount of these penalties from his freight bills. An important prescription was the power given to the Railroad Commission to allow and direct the carriers to prefer traffic necessary for the subsistence of the people, like grain or meat or coal. During the recent severe weather we had occasion to use this power, and it is quite possible that without it more than one public service corporation in the State would have been shut down for the want of fuel. We sent our Chief Inspector, an experienced railroad superintendent and dispatcher, and kept him at Terre Haute during the worst of the delay, where he was able to get the carriers together and to help them give proper preference to much needed traffic. It is fair to state also that railroad officers and men labored day and night to move this traffic and did their best with the facilities afforded them to carry out the wishes of the Commission expressed to them.

The informal cases and adjustments of the same by the Commission still continue to constitute the greatest part of the work done by it. About three thousand cases of this class, including traffic department cases, have arisen during the year, involving numerous questions affecting rates, service, facilities, safety appliances and equipment. The amount of double tracking recently completed in the State is a matter of importance and value to the public as well as to the carriers. Facility and safety of movement have been greatly enhanced by this improvement. An improved condition in

the movement of coal has been effected by the establishment of joint rates over the different lines within the State on a basis of practical parity with rates over single lines.

During the year 1911 the railroad companies in numerous instances, particularly at the smaller points, have provided better depot facilities. It is estimated that twenty-five new station buildings have been constructed at the smaller points during the past year. The Act of March 6, 1911, requiring steam railroad companies to maintain adequate depots and depot buildings has contributed to bring about a better condition along these lines. Several new stations at more important points have been constructed while others are in contemplation. The C., I. & L. Railway Co. is building stone depots of modern design and having adequate accommodation at Hammond, Rensselaer and Bloomington, and union depot facilities are being worked out at the order of the Commission at Vincennes.

We have to report the very great increase in the work of the Tariff Department. This department of the Commission has handled during this year 1,992 cases, this being about as many as occupied the time of the department in all of its previous work. In addition to these written propositions, telephone conferences and quotations with shippers and with representatives of the carriers are more numerous than ever before. These also bring about personal conferences with shippers and with freight agents so that, as a matter of fact, the work of that department is now greater than can be well done by the force in the department. Our appropriation, however, will not justify further increase in the force, and the Commission, appreciating the energy and qualifications of the men in conduct of that department, will get along for the present as it is now organized. The Tariff bulletins issued monthly by this department, indicating not only advances in rates but the orders and decisions of the Commission and such matters of general interest to shippers as take place elsewhere, have been found to be very useful to shippers and are commended by them.

Another important part of the work of this department is the matter of claims, the refund of a great amount of overcharge in rates having been accomplished through the work of this department. We call attention especially to a case of importance in which this Commission took part, pending before the Interstate Commerce Commission:

Unjust discriminations in freight rates operating to the serious disadvantage of the shipping and commercial interests of Indian-

apolis and other localities in Indiana existed for many years, and in a large measure still exist, affecting trade and traffic to the west, northwest, south and southwest. Appeals to the carriers for relief from these inequalities and injustice in rates had been made in vain by individual shippers and firms representing the various lines of industry.

With the organization of the Indianapolis Freight Bureau in 1906 began a systematic and effective supervision of the carriers' tariffs, disclosing an astounding state of things in the extent and seriousness of the discriminations against Indianapolis and other Indiana manufacturing and distributing centers and in favor of surrounding competitive cities and districts in other States.

Negotiations were started by the Freight Bureau with the carriers to effect the much needed corrections in tariffs to remove these rate discriminations, and among the more important situations dealt with was the question of securing an equitable rate basis to the Missouri River district, Kansas City to Omaha inclusive, to enable the shippers of Indianapolis and other Indiana cities to fairly compete with shippers located in Chicago, Milwaukee and cities throughout Illinois and Wisconsin for trade in the important markets at the Missouri River. The higher rates held against the Indiana shippers were so radical and unjust as to prohibit the securing and holding of trade in competition with the shippers in Illinois and Wisconsin by reason of the lower rates accorded the latter.

The negotiations with the carriers failed by their refusal to make any concession in these rates, and the Indianapolis shippers, acting through the Freight Bureau, filed formal complaint with the Interstate Commerce Commission, and as a result of the hearing in the case, I. C. C. Docket 1042, a decision was rendered in which the rate conditions complained of were found to be unjust and unduly discriminatory against Indianapolis, and some substantial relief was granted, which, however, was not considered by the complainants as adequate to satisfy the complaint, and petition was filed for a rehearing, which was granted.

The attention of the Railroad Commission of Indiana was called to this rate situation and its far-reaching importance as affecting the shipping interests of not alone Indianapolis, but all manufacturing and commercial localities in the State, and an intervening petition in the Freight Bureau case was filed by the Commission before the Interstate Commerce Commission.

This Commission, having received complaints from interested

shippers at points in the State, also filed with the Interstate Commerce Commission a formal complaint against the Wabash R. R. and Clover Leaf-Alton System, charging discrimination against the cities and localities in Indiana served by those carriers and in favor of Chicago and Illinois cities also served by those carriers in the existing adjustment of rates to the Missouri River district.

This case, I. C. C. Docket 4513, and the Freight Bureau case, I. C. C. Docket 1042, both involving the same principle of rate adjustment to the Missouri River cities, were set for hearing at the same time, which hearing was had in U. S. court room at Indianapolis on December 1st and 2d, 1911. A large number of shippers from Indianapolis, Marion, Ft. Wayne, Wabash, Peru, Lafayette and Kokomo, as witnesses, testified at the hearing to the hardship imposed upon them in seeking trade in competition with Chicago, Milwaukee and the Illinois and Wisconsin cities under the existing rates.

Mr. J. Keavy, Commissioner of the Indianapolis Freight Bureau, testified as a rate expert in both cases and introduced many tabulated exhibits showing the injustice of the present rate adjustment, and submitted a basis for relative rates from the territory lying east of the Indiana-Illinois State line, with the rates in effect from the territory west of that line.

Mr. Edward E. Gates, attorney for the Freight Bureau, conducted the hearing for complainants.

Briefs are to be filed during January, 1912, and oral arguments before the full Commission in Washington.

Under the laws of Indiana the physical railroad is as much, perhaps more, under the jurisdiction of the Railroad Commission than is the matter of rates and revenues. The powers conferred on the Railroad Commission, so far as we are informed, are greater than those in any other State. The Commission has attempted to exercise these powers generally in an advisory way, because we thought it would appear (and as a matter of fact it has come to the understanding of most railroad men in the State), that the work we are doing is in aid of anything that they do or can do to promote safety and comfort in railroad transportation.

The inspection record of the Commission shows 4,080 cases that have been either reported to the Commission by its inspectors or by other persons or have come to the personal knowledge of members of the Commission. Most of these, as will appear by reference to the record hereafter set out in this volume, have been disposed of. Most of them were precautionary matters, things to be done

before the accident took place, therefore to prevent the accident. It was the custom of some of the railroads to allow things to go on until an accident took place and then to correct it, the price often being paid in human life as well as in money loss. The State, in its regulative power, takes the view of the humanitarian and endeavors to do before, so that disaster will not befall, what heretofore was done after the life and property had been sacrificed.

In its general policy of regulation the Commission has taken another step. Most of the laws of the State requiring safety acts and appliances provides penalties, and we have now instructed our inspectors to call on the prosecuting attorneys of the various counties and present to them the facts in cases where railroad companies fail to do that which the law clearly requires them to do. The effect of this action has been that we find very few penalty defects in cars and engines where we used to find very many.

The establishment of the legal clearance, overhead and lateral, by the laws of the State has prevented many fatalities. In reference to this matter, the Commission is quite willing to commend the fine co-operation of the railroad companies with the Commission in order that no accidents shall befall men on account of such clearances.

The activities of the Commission for many years with reference to block signals has had a most beneficial result. The Monon Railroad from Indianapolis to Chicago is putting on automatic blocks on a single line. The Nickel Plate Road is putting on automatic blocks on its single line entirely across the State. The Grand Trunk Western Railroad is putting automatic blocks on its double track on its entire 80 miles in the State of Indiana. Where the manual block has been permitted by the Commission (and the Commission does not hesitate to approve this form of blocking where the traffic is not dense and where the block is maintained with great efficiency), it has shown marked improvement on all lines in the State. The general manager of one of the lines advises that he has dismissed all telegraph operators under twenty-one years of age. Improvements in other lines reported to the Commission showing the separation of block operators from commercial work has greatly added to the efficiency of the system. While the Commission has recently been hindered in this particular work on account of the serious illness of its very capable Block Signal Inspector, so much has been accomplished that in a few years more we think Indiana will be far in advance of any other State, both

as to the mileage blocked and the character and efficiency of block systems established on the railroads throughout the State.

We may report to you that the Commission during the year has made a further advance in regulation which we regard as very important. After careful consideration, we have come to the opinion that the matter of the comfort of passengers on the railroads has not received the attention in this State that ought to have been given to it. We have instructed our inspectors to make this matter during the coming year a special feature of their work. We desire that depots throughout the State, and recent acts of the Legislature have given us great power with reference to them, shall be greatly improved, and that the requisitions of the statutes that they shall be well lighted and well heated and supplied with good drinking water, with nice toilet rooms for men and women, shall be no longer a fiction but a matter of fact. We think that the proper heating and ventilation of passenger cars throughout the State should receive the attention of the inspectors of this Commission. It has been shown to us during certain investigations made by the Commission that the Pullman Palace Car Company, whose sanitary department is in charge of a broad and well-informed physician, has made such rapid advances in this regard that it has probably doubled the number of cubic feet of air supplied to each passenger on its cars. The cleanliness of passenger cars, in order to prevent disease and in order that persons traveling on them may feel comfortable, is a matter to which we propose to direct the attention of our inspectors. The cleanliness of depots and their general appearance is another matter we shall insist upon. It should be borne in mind that in many of the small towns the depot is the place where the people gather when the trains come in or go out for the purpose of seeing as much of the world as they can see in that way. We have always felt kindly towards the railroad company which had provided a little grass park, a shade tree or two, a seat on the outside in the summer time for the comfort of the people, and in the winter time sufficient heat to keep its patrons warm and comfortable. Of course, it is to be expected that there should be development in ideas of this kind when the fact is asserted by the government control of railroads that these public highways are to be operated just as much for the benefit and for the comfort of the public who use them as they are operated in order to make returns for such private ownership as the government will permit to exist.

As to accident investigations and reports made during the year to the Commission and as to further work of the Commission in the matter of prevention of accidents, reference is hereby made to the chapters of this volume on that subject.

During the year the Commission, as required by the act of the General Assembly, appointed a Boiler Inspector. His report of what has been done by him will be found in subsequent pages. Some of the companies have been glad to co-operate, most of them, in fact, with this inspector, while some others have called the attention of the Commission to the fact that the Federal law, so far as engines in this State are concerned, seems to have occupied the entire field of legislation on that subject. We have asked the opinion of the Attorney-General with reference to this matter, and the Commission, as required by the act of the General Assembly, is endeavoring to give such force to it as the law will allow. We have appointed a competent Boiler Inspector whose work has been satisfactory to us and, so far as we are informed, satisfactory to the superintendents of motive power and to the master mechanics of the different railroads.

The interurban railroads have received a great deal of attention from members of the Commission. The practical operation of recommendations made by the Commission arising out of the accidents of 1910 have been carried on to a point where most of them are in force. We believe that there are very few, if any, motormen in the State now with less than one year's experience. Very few, if any, cars are left without a separate compartment for the motor-man, and it is the intention of the Commission to insist that by July 1, 1912, all such cars will be so equipped. As to block signals on these lines, which are very necessary, we permitted our inspector to work with the companies in order to secure from supply companies the construction of some form of automatic block signal which would be within the power of the companies to purchase and to install. This work was necessarily slow, but we are glad now to report that it seems to be accomplished and that three of the largest companies in the State will install at once automatic blocks upon certain parts of their lines whose working will probably indicate their efficiency and be followed by the installation of block signals on other portions of the interurban railroads until all the big companies have been equipped with an automatic block system.

As with the steam railroads so also with the interurbans, mat-

ters affecting the comfort of the passengers have taken a great deal of the time of the Commission. The Commission fully appreciates all conditions that make travel on these lines in some cases imperfect and uncomfortable. The cars have been equipped with single instead of double windows, making their heating difficult in the winter. One of the largest lines has advised the Commission that in this regard it will expend quite a large sum of money in order to overcome the low temperature in its cars. The crowding of the cars is another matter most difficult to provide against, but which the Commission thinks should be put in better condition. We are of the opinion that at certain hours of the day, when the volume of travel is largest, trailers should be provided, at least to certain nearby points. We have had this matter up with the companies, and while it must be remembered on the one hand that their revenues from freight are very small, that they have block signals to provide, entailing the expenditure of a large amount of money, on the other hand we are glad to note that their disposition is to co-operate very fully with this Commission in the betterment of the conditions we have mentioned.

While many cases have been settled and tried, the Commission is still involved in much litigation. Numerous suits are pending in both Federal and State courts to test the validity of the Commission's order to require the installation of Power Headlights on locomotives within the State. One of these cases, brought in the Federal Court by the C. & O. Railroad Company, has been put at issue, referred to a Master Commissioner, evidence heard and a finding made.

All questions involved, including the right of the Commission to investigate the question of the sufficiency of headlights now in use, and to prescribe Power Headlights in case of the inefficiency of the existing light, were decided in favor of the Commission, except the sole question as to the certainty and definiteness of the order.

The Master reports that the order is void for indefiniteness and uncertainty in that it prescribes a headlight of not less than fifteen hundred candle power, but does not specify the manner in which the light shall be determined. This is a disappointment, but the Commission, with executive approval, has employed additional counsel and will contest the Master's report by appropriate exceptions before the court.

Since our last annual report two decisions have been handed

down by the Supreme Court of the State to which the Commission was a party.

In one the right of the Commission to order the separation of dangerous grade crossings was upheld, and in the other a party aggrieved by reason of an order of the Commission must first apply to the Commission to modify or change the objectionable order before resorting to the courts.

During the past few weeks the United States Supreme Court has upheld the "Full Crew Law," enacted by the Indiana Legislature of 1907, the legal effect of which is to establish the validity of the act of 1909.

Successful prosecutions under the Bell Ringer Act, Human Endurance Law, and Safety Appliance Statute, have had a wholesome effect, so that very few violations of these statutes are now occurring.

There follows directly hereafter a list of the cases now pending.

PENDING LITIGATION.

The Commission is now engaged, as plaintiff or defendant, in the following litigation:

FEDERAL COURTS.

No. 3. Vandalia Railroad Company vs. Commission.

This case involved classified freight rates on the Vandalia Railroad between Indianapolis and Illinois State line. The finding and judgment of the Circuit Court of the District of the State of Indiana was adverse to the Commission. Case was appealed to the United States Supreme Court, where the same is now pending, and is in charge of the Attorney-General and the law firm of Korbly and New.

No. 26. Grand Trunk Railway vs. Commission.

In a proceeding before the Commission an order was made requiring the construction of an interlocker at the crossing of the G. T. and C., I. & L. railways in this State. The C., I. & L. Company was charged with the installation of the interlocker. Suit was brought by the G. T. Ry. Company in the Lake Circuit Court to set aside the order of the Commission. Decision was adverse to the railway company. Appeal was taken to the Appellate Court and the decision below affirmed. The G. T. Railway Company ap-

pealed to the Supreme Court of the United States. At the time of the decision of the Appellate Court the interlocker had been installed. The only question to be determined in the case is the division of the cost of the construction and maintenance. By agreement, the counsel of the C., I. & L. Ry. Co. have charge of the case. Cause still pending.

No. 35. Baltimore & Ohio Railroad Company vs. Commission.

This is a suit to set aside the order of the Commission entered in Case No. 322 requiring the installation of Power Headlights on locomotives in this State. The case was referred by the court to Hon. Noble C. Butler as Master Commissioner. Evidence was heard and the case argued orally by counsel, and the Commissioner, on the — day of December, filed his report, holding that the Commission has the authority to investigate the question of the efficiency of headlights on locomotives, and the authority to order the installation of Power Headlights; but held that the order entered in this case was indefinite and uncertain in that it did not specifically specify in what manner the candle power of the headlight ordered should be measured. The report has not yet been passed upon by the court. Five other cases have been instituted by other railroad companies against the Commission for the same purpose in which agreements have been made between the companies and the Commission whereby the cases are to pend until decision is reached in this case. The firm of Smith, Duncan, Hornbrook & Smith is employed as special counsel, and the case has been under the immediate charge of Mr. C. W. Smith.

No. 35. L. E. & W. R. R. Co. vs. The Commission.

Suit in United States Circuit Court, District of Indiana, to set aside Commission's order entered in case No. 322, requiring the installation of Power Headlights. Pending under agreement set out in case of Baltimore & Ohio Railroad Company vs. Commission.

No. 35. C., H. & D. Ry. Co. vs. Commission.

Suit brought to set aside Commission's order requiring the installation of Power Headlights on locomotives. Pending under agreement set out in case of B. & O. R. R. Co. vs. Commission.

No. 35. E., J. & E. R. R. Co. vs. Commission.

Suit brought to set aside Commission's order entered in case No. 322, requiring the installation of Power Headlights on loco-

motives. Pending under agreement set out in case of B. & O. R. R. Co. vs. Commission.

No. 35. Chicago Terminal Transfer Company vs. Commission.

Suit brought to set aside Commission's order requiring the installation of Power Headlights on locomotives. Pending under agreement set out in case of B. & O. R. R. Co. vs. Commission.

No. 35. Michigan Central R. R. Co. vs. Commission.

Suit brought to set aside Commission's order requiring the installation of Power Headlights on locomotives. Pending under agreement set out in case of B. & O. R. R. Co. vs. Commission.

The State vs. Vandalia Railroad Company.

This was a prosecution against the defendant for violation of the Full Crew Law, being Chapter II of the Acts of 1907. The company was fined in the Criminal Court of Marion County. Cause appealed to the Supreme Court of the State of Indiana and affirmed, taken to the Supreme Court of the United States on writ of error. Cause was affirmed by the Supreme Court of the United States. Case in charge of Hon. Martin M. Hugg and the Attorney-General.

STATE COURTS.

Allen Circuit Court.

No. 35. N. Y. C. & St. L. R. R. Co. vs. Commission.

Suit to set aside order of Commission, entered in case No. 322, requiring the installation of Power Headlights on locomotives. Pending agreement in case of B. & O. R. R. Co. vs. Commission.

No. 65. State of Indiana vs. Otto N. Porter, Trainmaster of P., C., C. & St. L. R. R.

Defendant charged by affidavit with violation of the sixteen-hour law. Case pending.

No. 66. State of Indiana vs. Pa. R. R. Co.

Defendant charged by affidavit with failure to equip engine No. 7951 with automatic bell ringer. Plea of guilty; fined \$100.

No. 66. State of Indiana vs. Pa. R. R. Co.

Affidavit charging defendant with failure to equip engine No. 7455 with automatic bell ringer. Plea of guilty; fined \$100.

No. 66. State of Indiana vs. Pa. R. R. Co.

Defendant charged by affidavit with failure to equip engine No. 7716 with automatic bell ringer. Case dismissed.

No. 66. State of Indiana vs. Pa. R. R. Co.

Defendant charged by affidavit with failure to equip engine No. 7735 with automatic bell ringer. Case dismissed.

Allen Superior Court.

No. 35. Pennsylvania Railroad vs. Commission.

Suit to set aside order of Commission entered in case No. 322, requiring the installation of Power Headlights on locomotives. Pending agreement in B. & O. R. R. Co. vs. Commission.

Cass Circuit Court.

No. 68. State of Indiana vs. P., C., C. & St. L. Ry. Co.

Defendant charged by affidavit with failure to equip engine

No. 8113 with automatic bell ringer. Case pending.

No. 68. State of Indiana vs. P., C., C. & St. L. Ry. Co.

Defendant charged by affidavit with failure to equip engine No. 8414 with automatic bell ringer. Case pending.

No. 68. State of Indiana vs. P., C., C. & St. L. Ry. Co.

Defendant charged by affidavit with failure to equip engine No. 8335 with automatic bell ringer. Case pending.

Decatur Circuit Court.

No. 35. Southern Indiana Railway Company vs. Commission.

Suit to set aside order of Commission, entered in case No. 322, requiring the installation of Power Headlights on locomotives. Pending agreement in B. & O. R. R. Co. vs. Commission.

Dearborn Circuit Court.

No. 35. B. & O. S. W. R. R. Co. vs. Commission.

Suit to set aside order of Commission, entered in case No. 322, requiring the installation of Power Headlights on locomotives. Pending agreement in B. & O. R. R. Co. vs. Commission.

Delaware Circuit Court.

No. 43. Commission vs. Central Indiana Railway Company.

Suit to recover penalty on account of draw-bar of caboose No. 300 being broken. Pending on demurrer; case in charge of Attorney-General.

No. 44. Commission vs. James P. Goodrich, Receiver, C., C., C. & St. L. R. R. Co.

Suit to recover penalty on account of insecure grab irons and hand-holds on sides and ends of box car No. 1290. Case in charge of Attorney-General.

No. 45. Commission vs. James P. Goodrich, Receiver, C., C., C. & St. L. R. R. Co.

Suit to recover penalty on account of using car No. 19870, belonging to the Missouri Pacific Railroad Company, without having grab irons or hand-holds on sides or ends of car. Case in charge of Attorney-General.

No. 46. Commission vs. James P. Goodrich, Receiver, C., C., C. & St. L. R. R. Co.

Suit to recover penalty on account of use of box car No. 50857, belonging to Pere Marquette Railroad Company, without being equipped with automatic coupler. Case in charge of Attorney-General.

No. 50. Commission vs. L. E. & W. R. R. Co.

Suit to recover penalty on account of using coupler on car that work automatically. Pending on demurrer to complaint. Suit in charge of Attorney-General.

No. 58. Commission vs. L. E. & W. R. R. Co.

Suit to recover penalty on account of defective coupler on tank car No. 5348. Pending on demurrer to complaint. Case in charge of Attorney-General.

Grant Circuit Court.

No. 54. Commission vs. T., St. L. & W. R. R. Co.

Suit to recover penalty on account of use of car No. 2884 having no grab irons or hand-holds on sides or ends of car. Pending on demurrer to complaint. Case in charge of Attorney-General.

No. 67. State of Indiana vs. C., C., C. & St. L. R. R. Co.

Defendant charged by affidavit with violating full crew law. Case pending.

Huntington Circuit Court.

No. 70. State of Indiana vs. Walter A. Baldwin.

Defendant charged by affidavit in eleven cases with violation of the sixteen-hour law. Cases pending.

Jasper Circuit Court.

No. 49. Commission vs. Chicago & Wabash Valley R. R. Co.

Suit to recover penalty on account of use of caboose and way car No. 301 not having standard height of drawbars. Case in charge of Attorney-General.

Lagrange Circuit Court.

Commission vs. Wabash Railroad Company.

Suit to enforce separation of highway and railroad grade at Topeka. Trial, finding and judgment for the plaintiff. Grade ordered separated. Case appealed to Supreme Court. Case affirmed by Supreme Court. J. W. Hanan employed as special attorney.

Lake Superior Court.

Commission vs. Grand Trunk Western Railroad Company.

Suit to recover penalty for failure to install block signal system as provided by the Act of March 9, 1907. Demurrer to complaint argued and permitted; overruled; cause put at issue; trial entered upon; pending trial; court set aside ruling on demurrer and sustains demurrer to complaint. Commission declines to plead further. Judgment and appeal to the Supreme Court. Ibach and Cravens employed as special counsel.

Lake Superior and Circuit Court.

No. 5. Chicago, Indiana & Southern R. R. Co. vs. Commission.

Suit brought to set aside order of Commission entered in case No. 177, requiring the construction of a depot building at Lake Village. Company constructed a depot but have failed to dismiss its suit.

No. 35. C., I. & L. Ry. Co. vs. Commission.

Suit brought to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights on locomotives. Pending on agreement between parties to await the decision in the case of P., C., C. & St. L. Ry. Co. vs. Commission in Marion Circuit Court.

No. 35. C., I. & S. R. R. Co. vs. Commission.

Suit brought to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights on locomotives. Pending on agreement between parties to await the decision in the case of P., C., C. & St. L. Ry. Co. vs. Commission in Marion Circuit Court.

Lake Superior and Circuit Court.

No. 35. Grand Trunk Western R. R. Co. vs. Commission.

Suit brought to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights on locomotives. Pending on agreement between parties to await the decision in the case of P., C., C. & St. L. Ry. Co. vs. Commission in Marion Circuit Court.

No. 35. L. S. & M. S. Ry. Co. vs. Commission.

Suit brought to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights on locomotives. Pending on agreement between parties to await the decision in the case of P., C., C. & St. L. Ry. Co. vs. Commission in Marion Circuit Court.

No. 35. E., J. & E. R. R. Co. vs. Commission.

Suit brought to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights on locomotives. Pending on agreement between parties to await the decision in the case of P., C., C. & St. L. Ry. Co. vs. Commission in Marion Circuit Court.

No. 35. C. & E. R. R. Co. vs. Commission.

Suit brought to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights on loco-

motives. Pending on agreement between parties to await the decision in the case of P., C., C. & St. L. Ry. Co. vs. Commission in Marion Circuit Court.

No. 35. B. & O. R. R. Co. vs. Commission.

Suit brought to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights on locomotives. Pending on agreement between parties to await the decision in the case of P., C., C. & St. L. Ry. Co. vs. Commission in Marion Circuit Court.

Laporte Circuit Court.

No. 64. State of Indiana vs. Pere Marquette Ry. Co.

Indictment charging the defendant with violation of the full crew law. November 20, 1911, defendant entered a plea of guilty and was fined in the sum of \$100.

Marion Superior and Circuit Court.

No. 14. Commission vs. C., I. & L. Ry. Co.

Suit in Superior Court Room No. 2 to recover penalty on account of the issuance of free transportation in violation of Acts 1905. Case pending; in charge of Attorney-General.

No. 19. C., C., C. & St. L. Ry. Co. et al. vs. Commission.

Suit in the Superior Court concerning the moving of gravel from LaFayette. Case pending.

No. 20. L. E. & W. R. R. Co. et al. vs. Commission.

Suit to set aside order of Commission classifying thin cut lumber. Case still pending.

No. 30. Indianapolis Southern R. R. Co. vs. Commission.

Suit to set aside order in case No. 283 requiring the construction of shed and stock pens at Providence. Case by agreement dismissed. Cost against plaintiff.

No. 32. C., I. & L. Ry. Co. vs. Commission.

Suit to enjoin enforcement of order establishing switching rate at Bloomington on C., I. & L. and Indianapolis Southern Rail-

road. Cause tried; finding in favor of Commission. Case appealed to Supreme Court and affirmed. Hon. C. V. McAdams, special counsel.

No. 35. Vandalia R. R. Co. vs. Commission.

Suit to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights. Pending on agreement between parties to await the decision in the case of P., C., C. & St. L. Ry. Co. vs. Commission in Marion Circuit Court.

No. 35. C., C., C. & St. L. Ry. Co. vs. Commission.

Suit to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights. Pending on agreement between parties to await the decision in the case of P., C., C. & St. L. Ry. Co. vs. Commission in Marion Circuit Court.

No. 35. Indianapolis Southern R. R. Co. vs. Commission.

Suit to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights. Pending on agreement between parties to await the decision in the case of P., C., C. & St. L. Ry. Co. vs. Commission in Marion Circuit Court.

No. 35. P., C., C. & St. L. Ry. Co. vs. Commission.

Suit to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights. Demurrer to complaint argued; agreement between parties that this cause shall be put at issue and tried without unnecessary delay, and other cases of like nature shall pend awaiting decision in this case.

No. 35. P. & E. R. R. Co. vs. Commission.

Suit to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights. Pending on agreement between parties to await the decision in the case of P., C., C. & St. L. Ry. Co. vs. Commission in Marion Circuit Court.

No. 47. Commission vs. C., C., C. & St. L. Ry. Co.

Suit by Commission to recover penalty on account of defects in car No. 22423. Case in charge of Attorney-General.

No. 53. Commission vs. C., I. & L. Ry. Co.

Suit to recover penalty on account of using car without automatic coupler. Case in charge of Attorney-General.

No. 55. Commission vs. C., I. & L. Ry. Co.

Suit to recover penalty on account of car No. 5117 not being equipped with grab irons on sides and ends of car. Case in charge of Attorney-General.

No. 56. Commission vs. P., C., C. & St. L. Ry. Co.

Suit to recover penalty on account of using switch engine No. 8048 without being equipped with automatic couplers. Suit in charge of Attorney-General.

No. 57. Commission vs. P., C., C. & St. L. Ry. Co.

Suit to recover penalty on account of using switch engine No. 8048 without being equipped with automatic coupler. Suit in charge of Attorney-General

Commission vs. C., I. & L. Ry. Co.

This was a suit to recover penalty on account of defendant company refusing to install block signal system as provided for by the Act of March 9, 1907. Demurrer to complaint argued and taken under advisement. Korbly & New, special counsel. 1910. Case settled. Defendants paying all costs and attorneys' fees.

C., C., C. & St. L. Ry. Co. vs. Commission.

Suit to set aside order of Commission requiring the construction of switch as entered in cause No. 425. Cause heard and decided adversely to the Commission. Bailey & Young, special counsel.

C., C., C. & St. L. Ry. Co. vs. Commission.

Suit to set aside order of Commission requiring the construction of switch as entered in cause No. 425. Cause at issue and set for trial January 15, 1912. Bailey & Young employed as special counsel.

Commission vs. I. & C. Traction Company.

Suit to enforce order to install highway crossing signs. Demurrer sustained to complaint. Subsequently the Act of March 6, 1911, requiring steam and interurban railroads to erect highway crossing signs at each grade crossing with the line in the State was enacted, and in view of this enactment, case was dismissed. Hon. J. E. McCullough, special counsel.

Commission vs. H. F. Houghton.

This was an application to the Circuit Court to require the defendant to answer certain question in an inquiry held by the Commission to investigate the efficiency of the telegraph operators employed by the C., C., C. & St. L. Ry. Co., of which the defendant was general superintendent. Court held that defendant was not in contempt and was discharged. Hon. J. E. McCullough, special counsel.

Commission vs. Vandalia R. R. Co.

Suit to enforce an order of the Commission entered against the defendant requiring it to cease operating an engine backwards in drawing a freight train from Indianapolis to Martinsville. Cause at issue and ready to be set for trial. Korbly & New, special counsel.

Tippecanoe Superior and Circuit Court.

Commission vs. C., I. & L. Ry. Company.

Fifty suits instituted in Montgomery Circuit Court by the Commission against the C., I. & L. Ry. Co. to recover penalty for failure to observe Commission's orders in fixing rates on coal north of New Albany. On September 21, 1910, these causes were all consolidated. An unsuccessful effort has been made to arrive at an agreement of facts so that the legal questions might be submitted to the court. Change of venue taken to Superior Court of Tippecanoe County. Demurrer to complaint filed; same argued and submitted and pending decision of the court.

No. 8. Wabash R. R. Co. vs. Commission.

This case is still pending in Superior Court.

No. 35. Wabash R. R. Co. vs. Commission.

Suit to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights on locomotives. By agreement suit to pend until decision in the P., C., C. & St. L. Ry. Co. vs. Commission in the Superior Court of Marion County.

Vanderburgh Superior and Circuit Court.

No. 35. E. & I. R. R. Co. vs. Commission.

Suit to set aside order of Commission entered in case No. 322 requiring the installation of Power Headlights on locomotives. Cause pending by agreement between parties.

No. 37. Commission vs. Southern Railway Company.

Suit to recover \$100 penalty on account of defects in car No. 61264. Cause put at issue; trial; finding and judgment for plaintiff. Appealed to Supreme Court; cause briefed and ready for submission. Spencer, Brill & Hatfield employed as special counsel.

No. 38. Commission vs. Southern Railway Company.

Suit to recover penalty on account of defect in car No. 61114. Trial; finding and judgment for plaintiff. Motion for new trial filed. By agreement cause to pend until decision in Supreme Court in No. 37 herein.

No. 39. Commission vs. Southern Railway Company.

Suit to recover penalty on account of defect in car No. 86430. Trial; finding and judgment for plaintiff. Motion for new trial filed. By agreement cause to pend until decision by Supreme Court in case No. 37 herein. Spencer, Brill & Hatfield employed as special attorneys.

No. 40. Commission vs. Southern Railway Company.

Suit to recover penalty on account of defects in car No. 86280. Trial; finding and judgment for plaintiff. Motion for new trial filed; by agreement cause to pend until decision by Supreme Court in case No. 37 herein. Spencer, Brill & Hatfield employed as special counsel.

No. 41. Commission vs. Southern Railway Company.

Suit to recover penalty on account of defects in car No. 62890. Trial; finding and judgment for plaintiff. Motion for new trial filed; by agreement cause to pend until decision by Supreme Court in case No. 37 herein. Spencer, Brill & Hatfield employed as special counsel.

No. 48. Commission vs. Southern Railway Company.

Suit to recover penalty on account of defect in car No. 71709. Cause pending. Attorney-General in charge.

E. & T. H. R. R. Co. vs. Commission.

Suit to set aside order of Commission requiring the construction of switch at Farmersburg, in the case of Lash vs. E. & T. H. R. R. Co. Special counsel employed by Lash. Case decided adversely to the Commission.

Commission vs. E. & T. H. R. R. Co.

Suit to recover penalty for failing to install block signal system as provided for by Act March 9, 1907. Spencer, Brill & Hatfield employed as special counsel. Case settled. Defendant pay all costs and attorneys' fees.

Vigo Superior and Circuit Court.

No. 42. Commission vs. E. & T. H. R. R. Co.

Suit to recover penalty on account of using car No. 16984, belonging to the Southern Railway Company, between points in Indiana, without grab irons on the sides or ends of car. Attorney-General in charge.

No. 51. Commission vs. E. & T. H. R. R. Co.

Suit to recover penalty on account of using freight car No. 82157 without having secure grab irons on sides or ends of car. Case in charge of Attorney-General.

Wayne Circuit Court.

No. 28. G. R. & I. R. R. Co. vs. Commission et al.

Suit to set aside order of Commission establishing the proportion of cost for the erection and maintenance of interlocker at Decatur between plaintiff, C. & E. R. R. and T., St. L. & W. R. R. Case tried; finding for defendants; case appealed, pending in Supreme Court.

No. 35. G. R. & I. R. R. Co. vs. Commission.

Suit brought by plaintiff to set aside order of Commission entered in case No. 322 requiring the installation of Power Head-

lights on locomotives. By agreement of parties case to pend until decision in case of P., C., C. & St. L. Ry. Co. vs. Commission in Superior Court of Marion County.

We attach hereto and make a part of this report the following :

- Appendix I: Financial Statement.
- Appendix II: Formal Proceedings.
- Appendix III: Informal Proceedings.
- Appendix IV: Report of Tariff Department.
- Appendix V: Report of Inspection Department and
Accident Bulletins.
- Appendix VI: Circular Letters.
- Appendix VII: Tables.

Respectfully submitted,

WM. J. WOOD, Chairman.

JOHN F. McCLURE,

FRANK E. PAYNE,

Commissioners.

APPENDIX I.

Financial Statement.

FINANCIAL STATEMENT COVERING THE FISCAL YEAR
ENDING SEPTEMBER 30, 1911.

Receipts.

Regular appropriation.....	\$30,000 00	
Specific appropriation	3,000 00	
	<hr/>	
	\$33,000 00	
Received from interlocking and other fees.....	1,419 38	
Vouchers and cash turned in.....	500 00	
	<hr/>	
		\$34,919 38

Disbursements.

Salary W. J. Wood.....	\$4,000 00	
Salary F. E. Payne.....	4,000 00	
Salary J. F. McClure.....	4,000 00	
Salary J. F. Reiley.....	2,500 00	
Salary M. T. Brady	1,800 00	
Salary J. M. Scott.....	1,875 01	
Salary D. E. Mathews, Inspector.....	1,800 00	
Salary Henry Zink, Inspector.....	1,500 00	
Clerks, stenographers and other office help.....	3,731 22	
Traveling expenses	1,193 25	
State Treasurer, interlocking and other fees.....	1,419 38	
Miscellaneous	60 40	
Telegraphing	66 53	
Telephone account	175 70	
Experts	1,388 22	
Engineers	735 01	
Attorneys' fees	2,861 39	
State printer	726 37	
Postage stamps	305 00	
Express account	16 24	
Typewriter account	124 18	
Vouchers turned in	314 90	
Cash turned in	185 10	
	<hr/>	
	\$34,777 90	
Balance appropriation turned in.....	141 48	
	<hr/>	
		\$34,919 38

APPENDIX II.

Formal Proceedings.

FORMAL PROCEEDINGS.

No. 6. Schnull & Company vs. Vandalia Railroad Company.

Pending in the Supreme Court of the United States on appeal from the United States Circuit Court granting a permanent injunction against the Commission.

No. 55. P. H. and F. Root & Co. et al. vs. C., C., C. & St. L. Ry. Co.

In this case an agreement was obtained from the carriers at Connersville whereby interchange between the C., H. & D. and the C., C., C. & St. L. should be effected by using the L. E. & W. tracks from Connersville to Beeson Station, the latter company receiving \$3.00 per car for its service. This arrangement has been in effect since June 1, 1911.

No. 57. Pittsburgh, Ft. Wayne & Chicago vs. Michigan Central Railroad. Interlocker at Tolleston.

Certain changes made, reported on by Consulting Engineer, approved by the Commission, and case pending.

No. 147. S. P. Jennings et al. vs. Pittsburgh, Cincinnati, Chicago & St. Louis Railway Company and Lake Erie & Western Railroad Company.

This was a petition to require the construction of a new depot at New Castle. At the hearing held in New Castle it was agreed that no order should be made at that time, but that the Commission should endeavor to secure an amicable adjustment thereof. Subsequently, the L. E. & W. R. R. Co. constructed a new station a short distance from the joint station, which has been operated for a number of years by the two companies at that point. Recently, the Commission has arrived at a conclusion with the P., C., C. & St. L. Ry. Co. whereby this company is to construct a new station at that point adequate for all purposes. The plans have not been submitted for the approval of the Commission at this time, but the Commission has been verbally advised by the superintendent that the same would be done.

No. 161. Inquiry Concerning Class Rates.

This case pending awaiting the decision of the Supreme Court of the United States upon cases involving the jurisdiction of the Commission.

No. 297. Wm. Graham et al. vs. Chicago, Indianapolis & Louisville Railway Company.

Petition for overhead bridge at Vernal Pike crossing in Monroe County. This matter was referred to Commissioner McClure, who took the matter up with the Monon Railroad and the Board of County Commissioners and the County Council of Monroe County. After considerable conference and two meetings the parties arrived at an agreement whereby an overhead bridge at the crossing in question was constructed. This crossing was a dangerous one at which point several accidents had occurred and one man was killed. The cost of the overway bridge was approximately \$1,100.

No. 322. In the Matter of Iocomotive Headlights, Chapter 128.
Page 323, Acts 1909.

The final order made by the Commission requiring the installation of Power Headlights on locomotives in the State is still in litigation in the Federal Court at the time of making this report. Pending the trial of these cases the Commission is without power to proceed further.

No. 328. The LaFayette Gravel & Concrete Company vs. Chicago, Indianapolis & Louisville Railway Company.

This case was decided, and the opinion and order made by Commissioner McClure. See Fifth Annual Report, page 39.

No. 349. J. E. Marbaugh et al. vs. Chicago & Erie Railroad Company.

This was an application for better train service on the Erie Railroad from Huntington over the road between that point and the Illinois line. The matter had been investigated and the Commission had decided in 1909 that additional train service would not be remunerative to the company if the same were established. The matter was referred to Commissioner McClure, who made a special trip over the line of the road in company with the general and division superintendents and general counsel of the company, as a

result of which an additional train was put on the line, making the run from Huntington to North Judson, and a train running from Chicago to Rochester in the afternoon was extended as far as Huntington on the east. This additional service has been in effect since June 16, 1911. The patrons of the line have expressed themselves as gratified with the improvement, and the case closed.

No. 367. In the Matter of Highway Crossing Signs on the Indianapolis & Cincinnati Traction Company.

This company and other companies having failed to install highway crossing signs as recommended by the Commission, the Commission recommended to the General Assembly a bill known now as Chapter 224, page 543 of the Acts of 1911, which act requires under penalty the installation of highway crossing signs at all level highway crossings in this State.

No. 368. In the Matter of Highway Crossing Signs on the Terre Haute, Indianapolis & Eastern Traction Company.

This case disposed of as reported above in case No. 367.

No. 369. In the Matter of Highway Crossing Signs on the Indianapolis, Columbus & Southern Traction Company.

This case disposed of as reported above in case No. 367.

No. 372. Schnull & Company vs. Cleveland, Cincinnati, Chicago & St. Louis Railway Company.

This case was continued to await the decision of the Supreme Court of the United States in cases affecting the jurisdiction of this Commission.

No. 373. In the Matter of Highway Crossing Signs on the Cleveland, Cincinnati, Chicago & St. Louis Railway Company.

This case disposed of as reported above in case No. 367.

No. 374. Penalty Defects on Southern Railway Company's Cars.

In this case suit was brought in the Vanderburgh Circuit Court; judgment in favor of the Commission for the statutory penalties. An appeal was taken to the Supreme Court of the State.

No. 375. Penalty Defects on Southern Railway Company's Cars.

Same as case No. 374, which see.

No. 376. Penalty Defects on Southern Railway Company's Cars.
Same as case No. 374, which see.

No. 377. Penalty Defects on Southern Railway Company's Cars.
Same as case No. 374, which see.

No. 378. Penalty Defects on Southern Railway Company's Cars.
Same as case No. 374, which see.

No. 387. Indianapolis Freight Bureau vs. Cleveland, Cincinnati,
Chicago & St. Louis Railway Company.

This case continued to await the decision of the Supreme Court of the United States.

No. 388. Indianapolis Freight Bureau vs. Cincinnati, Hamilton
& Dayton Railroad Company.

This case continued to await the decision of the Supreme Court of the United States.

No. 393. Petition for Installation of Interlocker at Seymour at
Crossing of P., C., C. & St. L. Ry. and Southern Indiana
Ry.

Petition in this case filed by the Pennsylvania Company, but on motion of petitioner, this case held up to await adjustment between the companies.

No. 396. In the Matter of Bridge Over Wabash River at Andrews.

This case involved a defective bridge over the Wabash River used by the Wabash Railroad Company at Andrews, Indiana. The Commission required practically the construction of a new bridge; respondent proceeded to do the work, and the Commission is advised that the same has been completed.

No. 397. John E. McGarry and Others vs. C., I. & L. Ry. Co.

This was a petition for a depot at Hammond. Since our last report, plans, specifications and blue prints for the construction of the depot have been filed with the Commission, and the same have been approved, and the work has been commenced, and probably will be completed in January, 1912.

No. 401. Indiana Ice Cream Association vs. The Express Companies.

This was decided, and opinion and order prepared by Commissioner McClure. It is reported in the Fifth Annual Report, page 73.

No. 414 E. E. Douglas et al. vs. C., H. & D. Ry. and C. & E. I. R. R. Cos.

In this case E. E. Douglas et al. filed a petition praying for an order against the respondent companies to construct a joint station at the intersection of the lines of the two companies at Hillsdale. The Commission held several conferences with the superintendents and general managers of the two lines of road, and as a result it was finally agreed by the companies that they would construct and operate independent stations at that place. The Commission not having power to order the construction of a joint station at the intersection of the two lines; the C., H. & D. have constructed its station a few hundred feet from the intersection, and the C. & E. I. have constructed a station about seven hundred feet south of the crossing of the two lines. The stations as located are not so convenient for the public use as if a joint station had been constructed at the intersection of the two lines, but owing to the difficulty of securing ground for the joint station and the approaches thereto, the companies decided to erect their own stations. This being done, the matter was closed.

No. 416. Arthur W. Taylor et al. vs. L. E. & W. R. R. and Grand Trunk Ry. Cos.

The petitioner complained that the respondent companies at Stillwell did not maintain proper and adequate depot facilities at that point. The matter was taken up with the respondent railroad companies, and as a result of negotiations the two companies agreed to construct at that place a joint station with waiting rooms adjacent to the tracks of each line, and an agent's office in the immediate angle of the two roads with adequate freight and baggage compartments. For the amount of business to be accommodated at this point, the Commission regards the plans submitted for the construction of the joint station at this point entirely adequate and has approved the same, and further the construction of the said depot shall be completed by the first of January, 1912, and the case is closed.

No. 421. Lyman Dunlap et al. vs. Indianapolis Southern R. R. Co.

This case was decided and opinion and order prepared by Commissioner McClure. See Fifth Annual Report, page 94.

No. 422. R. W. Vaughn & Co. vs. L. S. & M. S. Ry. Co. and B. & O. R. R. Co.

No proper petition having been filed in this case the same has been dismissed.

No. 429. The LaFayette Gravel & Concrete Company vs. Chicago, Indianapolis & Louisville Railway Company et al.

This was an application for joint and local rates out of Lafayette on concrete products. Subsequent to the filing of the petition the petitioner dismissed so much of the petition as sought joint rates. The matter was taken up with the carriers and in each instance tariffs were secured reducing the former rate and the same was satisfactory to the petitioner. The matter was disposed of as per report following:

McCLURE, *Commissioner*:

The petitioner alleges that it is engaged in the manufacture, sale and transportation of concrete products, to wit: drain tile, building blocks, fence posts, brick and other concrete products.

That its manufacturing plant is located at Lafayette, Indiana, where it conducts its said business; that the C., I. & L. Ry. Co., the C., C., C. & St. L. Ry. Co., the Wabash Railroad Company, and the L. E. & W. Railroad Company are engaged in operating lines of railroad which pass through the said city of Lafayette and from thence to various points within the State of Indiana; that the other railroad companies, respondents herein, operate lines within this State that connect with the lines of the companies heretofore mentioned as operating lines of railroad through the city of Lafayette, Indiana.

It is further averred that the local rates in effect on the lines passing through Lafayette on concrete products are excessive, unreasonable and unjust; and that the joint rates obtaining on petitioner's concrete products from said city of Lafayette to points on said lines throughout this State are too high, unreasonable and unjust. Prayer that just and reasonable rates, both local and joint, be fixed and reasonable minimum weights be established; and petitioner alleges that the following schedule of rates would be just and reasonable:

<i>Miles.</i>	<i>Local.</i>	<i>Joint.</i>
5 to 20.....	2c per cwt.....	3c per cwt.
20 to 35.....	2½c per cwt.....	3½c per cwt.
35 to 50.....	3c per cwt.....	4c per cwt.
50 to 75.....	3½c per cwt.....	4½c per cwt.
75 to 100.....	4c per cwt.....	5c per cwt.
100 to 125.....	4½c per cwt.....	5½c per cwt.
125 to 150.....	5c per cwt.....	6c per cwt.

The petitioner through its president dismissed the petition in so far as it related to joint rates and the Commission was advised that the proportion of the joint rate obtaining on petitioner's concrete products when going over the local lines in Lafayette to points of destination in this State prior to the decision of the Commission establishing a switching charge for the movement of freight in carloads over the rails of the C., I. & L. Ry. to connecting lines in Lafayette, would be a just, fair and reasonable local rate out of that point.

The question of the local rates on petitioner's concrete products was taken up with the carriers whose lines pass through the city of Lafayette, and each company filed its commodity tariff, embracing all of the petitioner's products, and reduced to a mileage basis. The C., C., C. & St. L. Company's tariff is as follows:

<i>Miles.</i>	<i>Brick.</i>	<i>Tile.</i>	<i>Building Blocks.</i>
1 to 50	2
50 to 65	2½
65 to 70	3
70 to 80	3½
80 to 120	4½
1 to 15	..	2½	..
15 to 20	..	2¾	..
20 to 25	..	3	..
25 to 30	..	3½	..
30 to 35	..	3¾	..
35 to 40	..	4	..
40 to 60	..	4½	..
60 to 75	..	4¾	..
75 to 85	..	5	..
85 to 120	..	5½	..
1 to 10	2½
10 to 25	2¾
25 to 40	3
40 to 60	3¾
60 to 80	4
80 to 100	5
100 to 120	6

The rates established by the other companies are substantially the same. The rates thus established are regarded as just and reasonable, and to which the petitioner has interposed no objection, although his attention was called to the fact that the carriers had filed their tariffs establishing local rates from Lafayette to various points on the lines within the State. I therefore recommend that these rates so filed be approved and the petition be dismissed.

No. 430. John Sullivan et al. vs. Wabash Railroad Company.

On May 4, 1911, it being shown to the Commission that respondent was affording passenger service at Williamsport by complying

with the act of the last General Assembly, and stopping four of its passenger trains in each direction at Williamsport, this case was dismissed.

No. 431. Hoffman Brothers Company vs. B. & O. S. W. R. R. Co.

No proper petition having been filed in this case, same has been dismissed.

No. 438. French Brothers vs. C., I. & L. Ry. Co. Rates on Brick.

In this case, after full hearing and consideration, by an order made by the Commission, respondents were required on and after January 1, 1911, and for two years thereafter to publish, maintain, and charge a rate of 65 cents a ton on brick from Crawfordsville to Brookston, Indiana.

No. 439. P., C., C. & St. L. Ry. Co. vs. The Town of Hebron.

Appeal from ordinance requiring installation and maintenance of gates at crossings. The opinion and order in the case dismissing the appeal is as follows:

McCLURE, *Commissioner*:

This is an appeal by said railway company from the action of the board of trustees of the town of Hebron, Indiana, in the matter of the enactment of an ordinance requiring the erection and maintenance of gates at the crossing of Main street, Washington street, Sigler street and Quincy avenue and the tracks of the Pittsburgh, Cincinnati, Chicago and St. Louis Railway in the town of Hebron, Indiana. The ordinance is as follows:

"AN ORDINANCE.

"An ordinance requiring the erection and maintenance of gates at the crossing of Main street, Washington street, Sigler street and Quincy avenue and the tracks of the Pittsburgh, Cincinnati, Chicago and St. Louis Railway in the town of Hebron, Indiana.

"WHEREAS. The security of the people and property require that the Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company, whose tracks intersect and cross Main, Washington, Sigler streets and Quincy avenue, in the town of Hebron, shall erect and maintain gates across such streets, on either side of their right of way at such intersection or crossing, and shall cause the same to be closed upon the approach of any engine, car or train of cars, so as to prevent persons, horses, teams, automobiles, motorcycles or other vehicles from going onto or attempting to cross said tracks until such engine, car or train of cars shall have passed.

"Section 1. Be it therefore ordained by the board of trustees of the town of Hebron, Indiana, That the Pittsburgh, Cincinnati, Chicago and

St. Louis Railway Company, or corporation operating said railway, shall erect and maintain such gates on either side of its track or tracks at the crossing of Main, Washington and Sigler streets and Quincy avenue, in said town of Hebron, Indiana.

"Sec. 2. That the Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company, aforesaid, and the agent or employes thereof, in charge of such gates, shall close the same upon the approach of any engine, car or train of cars, and keep the same closed until the engine, car or train of cars shall have passed such crossing; and such gates shall then be opened to allow travel to resume upon such streets, provided that the duty of opening and closing such gates as aforesaid shall be performed by said railway company on each day in the year from 5 o'clock a. m. until 9 o'clock p. m. in each day.

"Sec. 3. Any railroad or railway company, agent or employe who shall fail to observe any of the provisions of this ordinance or shall violate the same, shall in such case, on conviction, be fined in any sum not less than five (\$5.00) dollars, or more than one hundred (\$100.00) dollars, and forfeit the same to said town: Provided, Each day that said railway company shall fail to erect and maintain such gates as herein provided shall be a separate offense.

"Said penalty above provided for shall be collected by said town by appropriate action.

"This ordinance shall be in full force and effect on and after February 1, 1911.

"I certify that the above and foregoing is a full, true and correct copy of an ordinance adopted by the board of trustees of Hebron, Indiana, on December 2, 1910.

"Given under my hand and seal this sixth day of December, 1910.

"ROY B. RATHBURN,
Clerk of Town of Hebron.

"A. W. BLANCHARD, President."

The reasons given for the appeal by the appellant company are as follows:

First. Because said The Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company, at the time of the adoption of said resolution and for some time prior thereto, had maintained and operated and since that time has, maintains and operates, at each of said street crossings over its railroad, namely, at Main street, Washington street, Sigler street and Quincy avenue, in said town of Hebron, alarm bells, which are so regulated that they sound an alarm and give ample notice of the coming of an approaching train, and which alarm bells are ample and sufficient protection to the traveling public, if their warnings are heeded by said traveling public; that said railroad company was compelled to expend about one thousand dollars in installing said electric alarm bells at said crossings, and to be compelled to comply with said resolution will cause said bells to be abandoned and said bells will become useless.

Second. That the law under which the said town of Hebron acted or assumed to act in the adoption and passage of said ordinance is in violation of the 14th amendment to the Constitution of the United States,

in that it deprives the said The Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company of its property without due process of law and denies to it the equal protection of the law.

Third. That the law under which the said town of Hebron acted or assumed to act in the adoption and passage of said ordinance is in violation of the Constitution of the United States in that it withholds from said The Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company rights, privileges and immunities which upon the same terms are granted to other persons or citizens.

Fourth. That the law under which said town of Hebron acted or assumed to act in the adoption and passage of said ordinance is in violation of the Constitution of the State of Indiana in that it withholds from The Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company privileges and immunities which upon the same terms are granted to other persons or citizens.

Fifth.—That the law under which said town of Hebron acted or assumed to act in the adoption or passage of said ordinance is in violation of the Constitution of the State of Indiana in that said law is special and not general and its application is made to depend upon the opinion of said board of trustees of said town of Hebron.

Sixth. That said ordinance is in violation of the Constitution of the United States in that it is a taking of the property of The Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company without due process of law and denies to it the equal protection of the law.

It will be observed that the reasons stated for the appeal, with the exception of the first, are constitutional objections to the validity of the ordinance, namely, as specified in the second reason for appeal, that the law under which the town of Hebron acted in the adoption and passage of the ordinance is in violation of the 14th amendment to the Constitution of the United States in that it deprives the appellant of its property without due process of the law and denies to it the equal protection of the law.

The third ground asserts that the law under which the town of Hebron acted in the passage of the ordinance in question is in violation of the Constitution of the United States in that it withholds from the appellant company rights, privileges and immunities which are granted to other persons or citizens.

Fourth. That the law under which the appellee town acted in the adoption of said ordinance is in violation of the Constitution of the State of Indiana in that it withholds from the appellant company privileges and immunities which upon the same terms are granted to other persons or citizens.

Fifth. That the law under which said town of Hebron acted in the adoption of said ordinance is in violation of the Constitution of the State of Indiana in that it is special and not general and in its application is made to depend upon the opinion of said board of trustees of said town of Hebron. And

Sixth. That the said ordinance is in violation of the Constitution of the United States in that it is a taking of property of the appellant

company without due process of the law and denies to it equal protection of the law.

The Commissioner visiting the town of Hebron, as required by the statute in such cases as this, was advised by the superintendent of that division of defendant railway company that the company did not desire to stand upon nor did it desire that the Commission should consider the objections to the ordinance raised by the company upon constitutional grounds. Therefore, the second, third, fourth, fifth and sixth reasons for appeal being waived, are disregarded by the Commission.

Upon an investigation of the premises where the ordinance seeks to establish gates at the crossing of the streets mentioned in the ordinance and the defendant railway company's tracks, it was found that the four crossings mentioned are within a distance of two squares, that the company's road is double tracked through the town of Hebron, as is the entire division of the road from Logansport to Chicago, that the line of road passes in a northwesterly and southeasterly direction through the town; that the right of the company is only obstructed by the station, which is located at a point about equidistant from the extreme crossings in either direction. At the most westerly crossing when crossing the tracks from the south the track is somewhat obscured by the elevation of the ground adjacent to the tracks. At the middle of the street crossing the depot building obstructs the view of the tracks to some extent toward the west, and a tool-house located east of the station to some extent obstructs the view of the track toward the east. Two of the crossings in question are but a short distance apart, perhaps not to exceed fifty feet, the one crossing the tracks in a due north and south direction, while the other highway and street crosses the tracks on a line due east and west. The movement of trains over appellant's line of road at this point approximates sixty trains per day, the major portion of which pass through the town between nightfall and morning. The company has installed bells at three of the crossings, but they are somewhat irregular and uncertain in giving alarm for the approach of every train, and when certain atmospheric conditions prevail when once set ringing continue to do so long after the train has passed. The town of Hebron has a population of about one thousand and is a trading point for a radius of several miles thereabout. Two of the crossings in question are streets within the town that are also continuous with public highways leading into the country. The business portion of the town is almost entirely south of the railroad, and in fact but a small portion of the residence part lies to the north of the tracks. Several casualties have occurred within the limits of the town in recent years by persons being struck by trains passing through. It was ascertained, however, that the parties who were struck by the trains were at fault, and in the exercise of reasonable care could have avoided injury to themselves. We think that taking into consideration the nature of the crossings in question, the amount of travel over the highways and the train movement on the tracks of the company and the manner in which the trains are distributed over the twenty-four hours in the day, that there does not exist the necessity for the installation of gates and the maintenance of the same by a watchman. It is incumbent upon the company, however, to see that the alarm bells now in use at these

crossings should be properly maintained, to the end that they accurately perform their functions and accurately warn travelers of the approach of trains. The appeal will be sustained and the order entered accordingly.

WHEREAS, The board of trustees of the town of Hebron in this State enacted an ordinance on December 2, 1910, requiring under penalties The Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company to erect and maintain gates at the crossing of Main, Washington, Sigler streets and Quincy avenue with the tracks of said railway company, the same to take effect February 1, 1911; and

WHEREAS, Within the time prescribed by law the P., C., C. & St. L. Ry. Co. appealed from the action of said board of trustees in said town of Hebron in the enactment of said ordinance to the Railroad Commission of Indiana; and

WHEREAS, Said matter was referred to a member of the Commission who visited the town and the site of said crossings referred to in said ordinance, and being otherwise well advised in the premises, reports to the Commission that said appeal should be sustained and said railway company not be required to erect and maintain gates at said crossings in said town.

WHEREFORE, It is ordered that the appeal of The Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company from the action of the board of trustees of the town of Hebron, Indiana, in enacting an ordinance requiring said railway company to erect and maintain gates at the crossing of Main, Washington and Sigler streets and Quincy avenue with the tracks of said railway company be sustained, and that said ordinance be inoperative and without effect.

No. 440. The Joseph Lay Company vs. P., C., C. & St. L. Ry. Co.
Application for Side Track at Petitioner's Plant at Ridgeville.

In this case several conferences were held by the Commission and petitioner and representatives of the railroad company, and it seems to be practically impossible to find a way to get a side track to the plant of the petitioner. The matter is still pending waiting a solution of this question.

No. 441. Interlocking Plant at Harwood.

Plans filed by Illinois Central Railroad Company for interlocking plant for the crossing of the C., C., C. & St. L. Ry. at Harwood. Matter referred to consulting engineer, and on report from engineer the plans were approved by the Commission.

No. 442. Indiana Manufacturers & Shippers' Association vs. Chicago, Terre Haute & South Eastern Railway Company and Others. Petition for the Adjustment of Manufacturers Rates on Coal.

This case continued generally at the request of the petitioner.

No. 443. C., C., C. & St. L. Ry. Co. vs. Evansville Belt Railway Company. Interlocker at Evansville.

Plans submitted, referred to consulting engineer, recommended by him to be approved, and approved by the Commission January 24, 1911.

No. 444. E. T. Slider vs. Southern Railway Company, and Louisville, New Albany and Corydon Railroad Company.

In this case which refers to rates on coal, sand and gravel from New Albany west. the following opinion was rendered, and order and modified order were made:

McCLURE, *Commissioner*:

The petitioner in this proceeding complains of the rates now in effect on the respondents' lines in Indiana for the transportation of coal, sand and gravel from New Albany westward to stations in this State. The petition alleges that the rates now in effect and applied to the movement of this traffic are unreasonable, excessive and unjust and are so laid as to prevent the movement of petitioner's traffic and with a view of fostering other industries producing competitive tonnage and located at other points on these lines in Indiana; and that by reason of such facts the rates are unlawful and operate to the undue prejudice, disadvantage and damage of the petitioner. The petitioner's business consists of the handling of bituminous coal produced in Pennsylvania and West Virginia and transported from points of origin to New Albany, this State, in barges on the Ohio River. Upon arrival at New Albany the coal is elevated, screened and otherwise treated and stored preparatory for shipment. The petitioner is also engaged in pumping, screening and preparing sand and gravel for sale and shipment, the same being obtained from the bed of the Ohio River. The coal handled by the petitioner consists of all grades of commercial bituminous coal, such as slack, nut, mine run and screen, being adapted to domestic use and steaming purposes. The sand and gravel so produced by the petitioner is adapted to all commercial purposes, including use in all concrete, street and highway building.

The evidence adduced in this case shows that the petitioner is engaged in handling bituminous coal mined in West Virginia and Pennsylvania, which is transported in barks on the Ohio River to New Albany; that upon its arrival at that point it is elevated, screened, prepared and stored in bins ready for shipment; and that various grades of coal are handled by the petitioner, such as slack, nut, mine run and screen, and are adapted to domestic and steaming uses. The petitioner is also shown to be engaged in mining sand and gravel from the Ohio River by pumping the same from the bed of the stream upon barge boats, screening and preparing these products for sale and shipment.

At various points on the lines of the Southern Railway, such as Boonville, Ayrshire and other points, bituminous coal is mined and the

same is marketed at various points along the line of said railway. The coal produced at said mines and the petitioner's coal compete in the various markets along the lines of this railway.

During the year 1908 the petitioner shipped 46 cars of coal to points west of New Albany on respondents' lines; in 1909, 27 cars; in 1910, 51 cars. None of these shipments moved any considerable distance, the farthest being to Corydon, a distance of 27 miles from New Albany. The principal part of the traffic moved by the petitioner during these three years was to Georgetown, a distance of 10 miles, and at a rate of 35 cents per ton.

From the mines along the respondents' line during the month of December, 1910, 124 cars of coal reached New Albany over the Southern Railway. At this rate during the course of a year, practically 1,500 car loads would thus reach the New Albany market. However, the demand at this point would vary at different seasons of the year and it could not be said positively that this number would represent the annual shipment, although it would be an approximation.

The rate from the mines to New Albany is 50 cents. This, however, has been made in order to meet competition with coal originating in Kentucky, from the mines on the Monon, and that coming off the Ohio River from Pennsylvania and West Virginia points.

From New Albany there is a west bound movement of 14 empty coal cars per day over the Southern Railway. These cars are carried empty to the mines in Indiana to be reloaded with coal for New Albany and points east.

The tariffs of the respondent railway on file with the Commission show that the following rates obtain on coal from the mines in this State to various points within the State reached by the lines of these companies, also the rates on coal from New Albany over the same lines to the same points:

Mileage West from New Albany.	Rates of Coal from New Albany.	Rates on Domestic Coal from Mines.	Rates on Steaming Coal from Mines.
3	35	30	30
6	35	30	30
9	35	30	30
15	55	30	30
16	55	40	30
17	55	40	30
19	55	40	30
20	55	40	30
24	55	40	30
28	55	40	30
32	60	40	30
36	65	50	40
39	65	60	50
45	70	60	50
49	70	60	50
52	70	70	50
54	70	70	50
55	70	70	50

Mileage West from New Albany.	Rates of Coal from New Albany.	Rates on Domestic Coal from Mines.	Rates on Steaming Coal from Mines
59	70	70	50
61	70	70	50
64	70	75	50
69	70	75	50
73	85	75	50
78	85	75	50
80	85	75	50
84	85	75	50
86	85	75	50
87	85	75	50
88	85	75	50
92	85	75	50
98	85	75	50
106	85	75	50

The tariffs on file with the Commission establishing rates on coal on the Monon from New Albany, on the Pennsylvania from Jeffersonville, and on the E. & T. H. and Vandalia railroads, show a lower rate on this commodity than obtains on the respondent's lines west from New Albany, and on steaming coal the rate from the mines in this State is very much less, being from 20 to 70 per cent. lower. The rates obtaining on classified freight in both directions on the Southern Railway are substantially the same, also rates upon various commodities are the same when moving in either direction in car loads. This is true of the rates on logs, straw, brick, grain, hay, lumber, scrap iron, sewer pipe, salt, ties, drain tile, cement, coke and other commodities.

The rates obtaining on the Southern Railway on crushed stone, which competes with the petitioner's gravel for highway construction, are 30 cents for distances including 55 miles, 35 cents from 55 to 70 miles; and 40 cents for a distance of 88 miles, whereas the rates on sand and gravel are 50 cents for all distances to and including 15 miles and 60 cents for all other distances to 65 miles.

It is contended by the respondent that the rates on coal in effect on these lines had been established by the Commission at a prior date under the act of 1905; and as the order was not limited by the terms of the act, the rate so fixed should not be disturbed nor changed by the Commission in this proceeding.

There was a proceeding before the Commission under the act of 1905, in which coal rates were fixed on the respondent's line west from New Albany, which are the rates complained of in the petition herein. *Slider vs. Southern Railway*, First Annual Report I. R. C., p. 97.

We cannot sustain this contention for the reason that the rate fixed at one time might be a reasonable rate, which on account of changed conditions might make such rate at a subsequent time unjust and unreasonable; and even though the Commission has fixed a rate it is, under the authority of the act creating the Commission, subject to change and modification by it at any time when the facts shown are such as to warrant such modification or change. The Appellate Court of this State, in discussing this question, used this language:

"Nor can the contention of appellant that the rates fixed by the Commission are in perpetuity affect the question, if they are reasonable and just, and the Commission had the power to make them, they would stand until changing conditions would affect the rights of the railroad company. If the rates were established in the first instance by the Legislature, they would necessarily be in perpetuity, that is, they would stand until changed by legislative enactment, or declared void by the court as being confiscatory; and if they were reasonable and just this could not be done. This rate-making power possessed by the Legislature it has transmitted to the Railroad Commission of Indiana. We think, however, that the Railroad Commission act, fairly construed, gives the Commission power to revise any rate fixed by it, on the petition of a railroad company, or any other party interested." *Southern Railway Company v. Hunt*, 42 Appellate, p. 90.

It is clear, we think, that the difference in rates between the New Albany rate and the rates from the mines in this State on coal, and particularly between the New Albany rate and the rate on steaming coal, is such as discriminates materially against the movement of petitioner's coal over the lines of the respondents.

It may be contended that the Indiana coal should be given preferential rates in order that the local mines may be kept in operation and that other enterprises, dependent indirectly at least upon them, be kept going, that it is to the interest of the carriers and the general business public along respondents' lines within the State to make lower rate for the movement of coal mined along these lines than for coal mined in other States and brought here in competition with the former. It is desirable that the coal mining interests of the State should be active and prosperous. A large amount of capital is invested in them and they give employment to a great number of citizens in the State and add materially to the volume of business transacted in the sections in which they are located. Railroads are permitted to do anything to justly increase their business and aid in the development of the resources of the country along their lines, but they are not permitted to discriminate against shippers who offer the same commodity under substantially the same conditions for practically the same service at their hands. *Slider v. C., I. & L. Ry. Co.*, Fourth Annual Report I. R. C., pp. 84-90; *Cardiff Coal Co. v. C., M. & St. P. Ry. Co.*, 13 I. C. C. 466.

Quoting from the last case, the Interstate Commerce Commission says:

"If a railroad is a public highway and Congress may lawfully authorize the Commission to establish through routes over it in connection with another railroad, when both are engaged in interstate transportation and thus open the two roads to shippers as a through highway for the transportation of their merchandise, ought the Commission refuse to open it to the merchant because another farther along on the highway is able to supply the demand at distant points for the commodity in question? Ought the Commission decline to enter an order to open such a through highway because one of the carriers, without endeavoring to show that its total

revenues will be unduly diminished, does show that its revenues on the particular traffic will be materially reduced? We find no such limitation in the clause in question. Nor are such limitations consistent with the duty that carriers owe to the shipping public. Being public highways, one merchant has as much right as another to move his goods over it. And it is no answer to his demand to say that the commodity in which he deals can be supplied in sufficient quantity to meet all demands, by a merchant elsewhere on the highway. The right of one merchant to enter a distant market and compete with other merchants is a definite right which can not be denied him on the ground that other merchants can supply all demands for that commodity. Nor is the fact that the revenues of the carrier may be reduced in the manner suggested by counsel a material consideration. It may be laid down as a general rule admitting of no qualification that a manufacturer or merchant who has traffic to move and is ready to pay a reasonable rate for the service has a right to have it moved and to have reasonable rates established for the movement, regardless of the fact that the revenues of the carrier may be reduced by reason of his competition with other shippers in the distant markets."

The shippers are entitled to be on an equality so far as rates are concerned when they move their property under similar conditions. As between the petitioner and his competitors along respondents' lines, he is shipping under practically similar conditions.

The cost of production of coal in West Virginia and Pennsylvania possibly varies with such cost in Indiana, but the evidence is silent on this point.

The petitioner's coal, it is true, is produced outside of the State, but when it is placed in his bins in New Albany it is the personal property of a citizen of the State, subject to taxation the same as if it were the property of a coal operator at the mines. No substantial distinction can be made between the two owners. Each has the same kind of commodity to be carried over the same road and for the same purposes. To discriminate in favor of the Indiana mine coal would be to offend against the interstate commerce clause of the Federal Constitution, especially so if the shipment was made direct to the point of consumption within this State from the mine in West Virginia or Pennsylvania. In any event, the consumer, who ultimately pays all charges and costs, is subject to discrimination, which the law inhibits.

Section 13 of the act of March 9, 1907, prohibits railway companies from discriminating in their charges between persons, firms or corporations for services rendered or to be rendered in transporting like kinds of traffic under substantially similar circumstances and conditions; and also denounces it as unjust discrimination to give undue preference or advantage to any particular locality, or to subject any place or locality to any undue prejudice, delay or disadvantage.

After giving careful and serious consideration to the rates applying on the movement of the petitioner's commodities and the rates affecting commodities originating on respondents' lines in competition therewith,

we have arrived at the conclusion that these rates are unjust and discriminative. It will be noted that for domestic use the rates applying on respondents' line from Boonville are 40 cents for distances as great as 56 miles; that to Princeton, a distance of 68 miles, a 35 cent rate obtains; and in no instance is the rate higher than 75 cents for a distance of 94 miles; whereas the rate from New Albany west is 55 cents from 15 to 30 miles; 60 cents from 30 to 35 miles; 65 cents from 35 to 40 miles; 70 cents from 40 to 70 miles; 75 cents from 70 to 80 miles; 85 cents up to and including 106 miles. These rates should be practically equalized. The rates applying on steaming coal from the mines east should be substantially applied from New Albany west.

The rates on sand and gravel obtaining from New Albany west over respondents' lines are, in our judgment, so high that they are practically prohibitive, at least they discriminate unduly against the petitioner, and the rates applying on these commodities should be reduced to relieve this traffic of discrimination. The rates applying on the movement of sand and gravel out of Lafayette on the L. E. & W. and Monon railroads would, in the opinion of the Commission, be just and fair to apply on the product from New Albany.

An order will be made requiring the respondent line to desist from applying the rates now in effect upon petitioner's product of coal, sand and gravel, and to apply the rates above indicated.

And the order fixing the rates on carload lots of coal for steaming purposes is modified and changed to read as follows:

"Rates on pea, slack and mine-run coal, in carload lots, minimum weigh 40,000 pounds, from New Albany to points designated."

ORDER.

Come now the parties hereto and this cause being submitted to the Commission, the evidence being heard therein, arguments of counsel presented, and the Commission, being fully advised in the premises, finds:

That the rates complained of in the petition and heretofore issued and published and filed with the Commission applying on coal, sand and gravel moving westward over the respondents' lines from New Albany in carloads are excessive, unreasonable and unduly discriminative as to the petitioner and other persons similarly located.

It Is Therefore Ordered, That respondents be and are hereby notified and required to cease and desist on or before the 10th day of July, 1911, from charging, demanding, collecting or receiving for transportation of coal, sand and gravel to any points on their lines within the State of Indiana, the rate and charge now made and received for such transportation, except as otherwise specified in this order.

It Is Further Ordered, That said respondent, Southern Railway Company, be and is hereby required to establish and put in force and effect on or before the 10th day of July, 1911, rates on coal when the same is for domestic consumption not in excess of the following schedule of rates per ton on coal in carload lots from New Albany, Indiana, to the different points on said line in the State of Indiana. The minimum weight of carload of coal is fixed at 40,000 pounds, and said schedule of rates is as follows:

COAL IN CARLOAD LOTS, MINIMUM WEIGHTS 40,000 POUNDS.

From New Albany to—	Rate in Cents per Ton.
Parkwood	\$0 35
Duncan	35
Georgetown	35
Crandall	50
Mott	50
Corydon Junction	50
Ramsey	50
Depauw	50
Milltown	50
Marengo	50
Temple	55
English	55
Taswell	55
Eckerty	55
Riceville	55
Birdseye	55
Mentor	55
Kyana	55
St. Anthony	55
Bretzville	55
Huntingburg	60
Duff	60
Velpen	65
Hartwell Junction	65
Hartwell	65
Goldthwait	65
Winslow	65
Ayrshire	65
Jackson Mine	65
Aberdeen Mine	65
Oakland City	65
Francisco	65
Princeton	70
Becks	70
Lyles	70
Parkers Switch	70
East Mt. Carmel.....	70

Evansville Branch.

Dale	65
Lincoln City	65
Gentryville	65
Pigeon	65
Tenneson	65
DeGonia	65
DeForest	70
Chandler	70

From New Albany to—	Rate in Cents per Ton.
Stevenson	70
Smythe	70
Evansville	70

Rockport Branch.

Kercheval	65
Bradleys	65
Chrisney	65
Ritchies	65
Rock Hill	65
Rockport	65

Cannelton Branch.

Buffaloville	65
Kennedys	65
Lemars	65
Evanston	65
Troy	65
Tell City	70
Cannelton	70

French Lick Branch.

Jasper	65
DuBois	65
French Lick	65

It Is Further Ordered, That said respondent Southern Railway Company be and is hereby required to establish and put in force and effect on or before the 10th day of July, 1911, rates on coal used for steaming purposes not in excess of the following schedule of rates per ton in carload lots from New Albany, Indiana, to the different points on its said lines in said State, and the minimum weight of carload of such coal is fixed at 40,000 pounds, such schedule of rates is fixed as follows:

COAL IN CARLOAD LOTS, MINIMUM WEIGHTS 40,000 POUNDS.

(STEAM.)

From New Albany to—	Rates in Cents per Ton.
Parkwood	\$0 30
Duncan	30
Georgetown	30
Crandall	30
Mott	30
Corydon Junction	30
Ramsey	30
Depauw	30
Milltown	30
Marengo	30
Temple	40

From New Albany to—	Rates in Cents per Ton.
English	50
Taswell	50
Eckerty	50
Riceville	50
Birdseye	50
Mentor	50
Kyana	50
St. Anthony	50
Bretzville	50
Huntingburg	50
Duff	50
Velpen	55
Hartwell Junction	55
Hartwell	55
Goldthwait	55
Winslow	55
Ayrshire	55
Jackson Mine	55
Aberdeen Mine	55
Oakland City	55
Francisco	55
Princeton	55
Becks	55
Lyles	55
Parkers Switch	55
East Mt. Carmel	55

Evansville Branch.

Dale	55
Lincoln City	55
Gentryville	55
Pigeon	55
Tenneson	55
DeGonia	55
DeForest	55
Chandler	55
Stevenson	55
Smythe	55
Evansville	55

Rockport Branch.

Kercheval	55
Bradleys	55
Chrisney	55
Ritchies	55
Rock Hill	55
Rockport	55
Buffaloville	55

Cannelton Branch.

From New Albany to—	Rates in Cents per Ton.
Kennedys	55
Lamars	55
Evanston	55
Troy	55
Tell City	55
Cannelton	55

French Lick Branch.

Jasper	55
DuBois	55
French Lick	55

It Is Further Ordered, That said respondent, the Southern Railway Company, be and is hereby required to establish and put in force and effect on or before the 10th day of July, 1911, rates not in excess of the following schedule of rates per ton on sand and gravel in carload lots from New Albany, Indiana, to different points on its lines in the State of Indiana, and the minimum weights shall be 40,000 pounds per car, said rates to apply on the movement of sand and gravel for commercial and road building purposes:

SAND AND GRAVEL IN CARLOAD LOTS. MINIMUM WEIGHTS
40,000 POUNDS.

From New Albany to—	Rates in Cents per Ton.
Parkwood	\$0 30
Duncan	30
Georgetown	30
Crandall	33½
Mott	33½
Corydon Junction	33½
Ramsey	37½
DePauw	37½
Milltown	37½
Marengo	37½
Temple	41
English	41
Taswell	41
Eckerty	41
Riceville	41
Birdseye	41
Mentor	41
Kyana	48½
St. Anthony	48½
Bretzville	48½
Huntingburg	48½
Duff	48½
Velpen	48½

From New Albany to—	Rates in Cents per Ton.
Hartwell Junction	56
Hartwell	56
Goldthwait	56
Winslow	56
Ayrshire	56
Jackson Mine	56
Aberdeen Mine	56
Oakland City	56
Francisco	56
Princeton	56
Becks	62 $\frac{1}{2}$
Lyles	62 $\frac{1}{2}$
Parkers Switch	62 $\frac{1}{2}$
East Mt. Carmel.....	62 $\frac{1}{2}$

Evansville Branch.

Dale	56
Lincoln City	56
Gentryville	56
Pigeon	56
Tenneson	56
DeGonia	56
DeForest	62 $\frac{1}{2}$
Chandler	62 $\frac{1}{2}$
Stevenson	62 $\frac{1}{2}$
Smythe	62 $\frac{1}{2}$
Evansville	62 $\frac{1}{2}$

Rockport Branch.

Kercheval	56
Bradleys	56
Chrisney	56
Ritchies	56
Rock Hill	56
Rockport	56

Cannelton Branch.

Buffaloville	56
Kennedys	56
Lamars	56
Evanston	56
Troy	56
Tell City	62 $\frac{1}{2}$
Cannelton	62 $\frac{1}{2}$

French Lick Branch.

Jasper	56
DuBois	56
French Lick	56

It Is Further Ordered, That the respondents are hereby required to establish and put in force and effect on or before the tenth day of July, 1911, on their lines within this State joint rates on coal not in excess of the following schedule of rates on coal for domestic use and steaming purposes respectively:

MINIMUM WEIGHT 40,000 POUNDS.

New Albany to Corydon and intermediate points between Corydon Junction and Corydon, Domestic, 50 cents; Steam, 40 cents.

It Is Further Ordered, That the Respondents be and are hereby required to establish and put in force and effect on or before the tenth day of July, 1911, joint rates not in excess of the following schedule of rates per ton on sand and gravel in carload lots from New Albany, Indiana, to different points on their lines in this State for all purposes.

MINIMUM WEIGHTS 40,000 POUNDS PER CAR.

New Albany to Corydon and intermediate points between Corydon Junction and Corydon, 40 cents.

And It Is Further Ordered, That the above and foregoing schedule of rates shall be and remain in effect on respondents' lines for a period of three years from the tenth day of July, 1911.

MODIFIED ORDER.

Comes now the respondents in the above entitled case this the twentieth day of June, and file their motion for rehearing herein and same is set for hearing before the Commission on the fifth day of July, 1911, and said parties appearing by counsel, and the Commission being fully advised in the premises does now alter, modify and change the rates fixed in the order of the Commission entered on the fourteenth day of June, 1911, applying on coal, in carload lots, from New Albany westward to the points designated in said order, to the following rates:

COAL IN CARLOAD LOTS, MINIMUM WEIGHT 40,000 POUNDS.

From New Albany to—	Rate in Cents per Net Ton.
Parkwood	35
Duncan	35
Georgetown	35
Crandall	50
Mott	50
Corydon Junction	50
Ramsey	50
DePauw	55
Milltown	55
Marengo	55
Temple	55
English	60

From New Albany to—	Rates in Cents per Ton.
Taswell	60
Eckerty	60
Riceville	60
Birdseye	60
Mentor	60
Kyana	60
St. Anthony	70
Bretzville	70
Huntingburg	70
Duff	75
Velpen	75
Hartwell Junction	75
Hartwell	75
Goldthwait	75
Winslow	75
Ayrshire	75
Jackson Mine	75
Aberdeen Mine	75
Oakland City	75
Francisco	75
Princeton	75
Becks	75
Lyles	75
Parkers Switch	75
East Mt. Carmel.....	75

Evansville Branch.

Dale	75
Lincoln City	75
Gentryville	75
Pigeon	75
Tenneson	75
DeGonia	75
DeForest	75
Chandler	75
Stevenson	75
Smythe	75
Evansville	75

Rockport Branch.

Kercheval	75
Bradleys	75
Chrisney	75
Ritchies	75
Rock Hill	75
Rockport	75

Cannelton Branch.

From New Albany to--	Rates in Cents per Ton.
Buffaloville	75
Kennedys	75
Lemars	75
Evanston	75
Troy	75
Tell City	75
Cannelton	75

French Lick Branch.

Jasper	75
DuBois	75
French Lick	75

No. 445. Citizens Gas Company of Indianapolis vs. C., I. & L.
Ry. Co.

This was a petition with reference to charges made by the railroad company for weighing cars. The opinion and order are as follows:

Wood, Chairman:

The charge made for weighing or reweighing empty cars on petitioner's scales at his plant is the question in this case. Petitioner contends that inasmuch as it is the duty of the carriers to furnish correct weights, so that legal charges may be made, this can be done only by reweighing the empty cars, the stenciled weight being in most cases inaccurate.

The scale over which the petitioner has his shipments weighed is owned by him and located on his private track, operated by a weighmaster appointed by the carriers, and the scales are tested by the carriers, the petitioner paying for the service of the weighmaster and also for the testing. The charge complained of is 50 cents per car for each car weighed.

The petitioner's witness testified that out of thirty-three cars weighed during a period of twelve days, only two were stenciled the correct weight, the other thirty-one showing an aggregate discrepancy of 14,600 pounds. Of these, twenty-five were stenciled less than actual weight to the aggregate amount of 12,800 pounds, and the remaining six cars were stenciled the aggregate amount of 1,800 pounds more than actual weight. Out of ten cars weighed the stenciled weight of eight was 6,920 pounds less than the actual weight, and the other two 780 pounds more than the actual weight.

Another witness at this hearing, Mr. C. W. Mouch, of the Indiana Rolling Mill Company, New Castle, introduced a statement of empty cars weighed at his plant under similar conditions, which shows the following result:

121 cars weighed.

2 cars the stenciled weight correct.

87 cars stenciled weight less than actual to amount of 69,690 pounds.

32 cars stenciled weight more than actual to the amount of 29,910 pounds.

The aggregate discrepancy, 119 cars, 92,600 pounds.

Overweights range from 20 to 8,100 pounds.

Underweights range from 40 to 3,840 pounds.

From what information the Commission has secured on this subject these errors seem to be general. In a petition filed with the Interstate Commerce Commission by the Grand Rapids Lumbermen's Association we find the following:

"As we have previously advised the Honorable Commission, several hundred cars weighed empty at and near Grand Rapids have developed an average variation in actual and indicated tare weight of over 1,000 pounds per car."

"The testimony of Mr. F. O. Becker, then superintendent of the Western Railway Weighing Association, before the Railroad Commission of Wisconsin, November 9, 1910, showed 1,586 cars checked weighed in one month resulting in total reduction of weight of an average of over 1,200 pounds per car."

The C., C., C. & St. L. Ry. introduced the testimony of a witness who keeps the records of weighing and reweighing cars, which was, generally, as follows:

Questioned as to the practice of the Big Four in weighing and stenciling cars, he stated that they are weighed at the plant where built, and are then weighed in twelve months. When first weighed, the weight is stenciled on the car, and when first reweighed one star is added; again weighed in twelve months and the weight is stenciled on the car, followed by two stars; again in another twelve months and followed by three stars. The stars are to indicate the number of times weighed, and the three stars indicate the final weight has been ascertained and the car is not again weighed unless it receives heavy repairs. The witness stated that this record of the weighing and reweighing indicated that about 90 per cent. of the cars decreased in weight between three and four hundred pounds per car and that he had noted very few cases where the weight increased unless heavy repairs were put on the car, and that such increases were about one hundred pounds, and very seldom over that. This related to all classes of cars excepting steel cars, which are weighed when first built and then reweighed at the end of twelve months, which weight was considered as the final weight of the car. The witness stated there is not much change in the weight of steel cars.

While this statement is at variance with the result of reweighing in actual practice, it can be accounted for by reason of the condition of weighing. No doubt when the cars are weighed by the carrier to ascertain the weight for the purpose of stenciling it upon the car, any accumulation on the car is removed and the scales over which weighed are subjected to closer surveillance and are not so likely to be inaccurate as scales generally, and further they are weighed, if not over the same

scales, at least over the scales of the same company, and it would appear that the scales of one company should more nearly conform than the scales of different companies or scales owned by private industries and tested and cared for by different persons.

A variation in the two different scales will cause a discrepancy in the stenciled and actual weight of the car, and this it is believed is the principal cause for such variation, although there are other causes, such as an accumulation of the car, either through natural causes, moisture absorbed, ice, snow, etc., or by reason of lading not being entirely removed from the car, particularly so in cases where the car has been previously loaded with a bulk article, such as grain, sand, crushed stone and like commodities. In the case of a closed car loaded with small grain, a large amount of the grain often lodges in the lining of the car, remaining there indefinitely and accumulating from time to time. Then in low-priced commodities a large amount is often left in the car when it would be difficult to remove it entirely.

As to the inaccuracy of the scales, we call attention to the report of the Minnesota State inspection of the track scales of the railways in that State for the years ending November 30, 1909 and 1910:

Year of 1909—

143 scale tests.

67 found to be correct.

16 weighing more than standard.

60 weighing less than standard.

The scales found weighing more than the standard varied from 150 pounds to 16,300 pounds.

The scales found weighing less than standard varied from 150 pounds to 4,000 pounds.

Year of 1910—

237 scale tests.

87 found to be correct.

95 weighing less than standard.

55 weighing more than standard.

The scales found weighing less than standard varied from 50 pounds to 44,400 pounds.

The scales found weighing more than standard varied from 50 pounds to 19,300 pounds.

The Commission is not informed as to the result of scales tested in this State by the carriers, but from such cases as comes to its attention where cars, usually loaded, are check-weighed, a condition no better than that in Minnesota exists, in which State the Railroad and Warehouse Commission has jurisdiction of this, and the scale apparatus is so sealed that the weighing power of the scale can not be changed or tampered with without the State department being able to prove said change.

It was suggested at the hearing that the difference in favor of and against the shipper would probably balance and it was indicated that the petitioner desired this information for his own use and in settling with the consignee. The Commission cannot consider either, that the difference will balance, for the reason that the rates under which the commodities

move to various points are different, and to different consignees, nor that the petitioner seeks the information for his own benefit, because this is incidental, and the main purpose of weighing or reweighing is that the carrier may make the charges the law requires and allows him to make. No doubt the railroad weights are used as a basis of settlement between the shipper and consignee, but it is the duty of the carrier to furnish this weight and this is part of the transportation service.

Upon the record in this case and based upon our extended investigation of this matter, and from our general knowledge, the Commission is of the opinion that the carriers are not performing the requirements that they shall furnish the actual weight of carload shipments, and this being the case the shipper has a reasonable right to have the weight verified in order that no injustice may be imposed upon him. This can be accomplished in this case only by having the empty car reweighed.

We conclude that the shipper may request cars to be weighed, and if such weighing discloses that the carrier has furnished the wrong weight no charge shall be made, and if it is found the weight originally offered by the carrier is the correct weight, the carrier shall be permitted to make a reasonable charge for the service.

On account of the great weight involved it is hardly possible to ascertain the weight within a few hundred pounds of the actual, and account of atmospheric conditions the weight of the car will vary slightly, so a variation of less than 500 pounds will be disregarded and a weight differing no more than that will be considered the correct weight of the car. This margin of difference is that found by the Interstate Commerce Commission in *Rice v. Georgia Railroad*, 14 I. C. C. Rep. 75, and *Sunderland v. C., B. & Q. R. R.*, 21 I. C. C. Rep. 632, to be reasonable as the minimum variation. In these cases a reasonable variation was found to be 1 per cent., with the minimum of 500 pounds, but in this case, as we are only considering empty cars which will seldom weigh in excess of 50,000 pounds, the percentage is disregarded and the variation fixed at 500 pounds.

Our observations in this case point also to another general conclusion, viz., the necessity in this State for such legislation as obtains on this subject in the State of Minnesota and other States. We trust this suggestion will not alarm those overzealous and supersensitive servants of corporations who continually cry out frantically against restrictive legislation even though such legislation is necessary to make practical and efficient any sensible plan of government regulation. Such outcries, far off, feeble and ancient, are only the echoes of foolish protests against the rights of the public to reasonably control those things whose only value arises from their use by the public.

An appropriate order will be entered.

ORDER.

Matters involved in the above case having been investigated by the Commission, and witnesses having testified, and petitioner and respondents having been heard, and it being shown that some of the carriers make no charge for the service complained of, and the Commission being fully advised, on final consideration,

It Is Ordered, That whenever respondents, at the request of petitioner, shall reweigh empty cars on petitioner's track scales, no charge shall be made for such service if such weighing shows an error in the stenciled weight of said cars of 500 pounds or more: Provided, If the variance is less than 500 pounds the charges set out in respondents' tariffs may be made.

It Is Further Ordered, That this order shall become effective on the first day of January, 1912, and that a copy thereof shall be transmitted by the Secretary to petitioner and to each one of the respondents.

No. 446. Chicago, Terre Haute and Southeastern Railway Company. Petition to be Allowed to Charge More for the Longer than Shorter Haul.

See No. 447.

No. 447. Chicago, Terre Haute and Southeastern Railway Company. Petition to be Allowed to Charge More for the Longer than Shorter Haul.

This matter being fully heard by the Commission on the 3d day of April, 1911, the following order was made:

WHEREAS, On the tenth day of February, 1911, the Chicago, Terre Haute and Southeastern Railway Company, through its general freight agent, Hiram P. Radley, filed a petition with this Commission praying the Commission to grant it authority to transport coal from the mines on its line in the Clinton district to the city of Indianapolis by way of its own line and the C., H. & D. Railroad, connecting at West Dana to Indianapolis, notwithstanding higher rates are charged for intermediate points on said line.

WHEREAS, It appearing that notice of the pendency of said petition was duly given in the Indianapolis News on the seventeenth day of February, 1911, that said matter would be heard by the Railroad Commission of Indiana at its rooms in the State House at Indianapolis, Indiana, on the sixth day of March, 1911, at 10 o'clock a. m., at which time and place any persons interested therein might be heard. And

WHEREAS, Said cause was continued until the third day of April, 1911, and no person, firm or corporation appeared to contest or object to the establishment of said rate over said route; and

WHEREAS, Said Commission duly found from the evidence introduced before it that the establishment of said rate of 50 cents per ton on coal from the mines in the Clinton district on the Chicago, Terre Haute and Southeastern Railway to Indianapolis over said line of road and the C., H. & D. Railroad, said lines connecting at West Dana, Ind., would not prejudice or injure any person, firm or corporation intermediate between the said lines and said city of Indianapolis; and no injustice would be imposed upon persons, property or places intermediate between said points by reason thereof; wherefore,

It Is Ordered by the Commission that said Chicago, Terre Haute and Southeastern Railway Company is hereby authorized to publish and put

in effect a tariff providing a rate of 50 cents per ton upon coal transported from the mines in the Clinton district on its lines via West Dana over the C., H. & D. Railroad to Indianapolis from and after ten days following the filing of said tariff with said Commission.

By Order of the Commission.

Attest: J. L. REILEY,
Secretary.

No. 448. Mercer-Winchel Lumber Co. vs. C., I. & L. Ry. Co., and
Vandalia Railroad Company.

Petition to require respondents to put in switching rates in the city of Crawfordsville, and in this case, the following order was made:

Comes now the parties to this proceeding appearing by their attorneys, and evidence having been heretofore heard, and the Commission being fully advised:

It Is Ordered, That the petition, so far as respondent Vandalia Railroad Co. is concerned, is hereby dismissed.

It Is Further Ordered, That the respondent, The Chicago, Indianapolis and Louisville Railway Company, is hereby required to issue, publish, and file with the Commission a switching tariff of \$3.00 per carload for the movement of all commodities in carloads to and from the public team track of said respondent to its connection with the Vandalia Railroad.

The said respondent is required to apply such tariff so here ordered for two years from the fifteenth day of April, 1911, to the fifteenth day of April, 1913.

It Is Further Ordered, That such terminal or switching rate may be made effective by filing a supplement to the present terminal or switching tariffs of respondent on file with this Commission.

It Is Further Ordered, That said respondent shall not be required under this order to furnish cars for outbound traffic loaded on its line at Crawfordsville, Indiana, when the movement from the junction point is to be over the line of the Vandalia Railroad Co., but in all such cases the line which is to perform the transportation shall furnish the empty cars to the respondent at the junction point, to be taken by it to the point of loading and returned to the junction point.

It Is Further Ordered, That respondent shall not be required under this order to surrender any rights or privileges in the movement of outbound traffic from Crawfordsville, by the following provisions of Paragraph "M," Section 3 of the act approved March 9, 1907:

"Provided that any such carriers shall not be required to perform such switching service in any case where such carrier can transport the freight to destination and point of delivery with reasonable dispatch, and at the same rate as the line offering the car, and shall at the time offer the car and be prepared to perform the service."

It Is Further Ordered, That the Secretary is required to deliver a copy of this order to petitioners and respondents.

No. 449. E. J. & E. Ry. Co. Proposed Changes in Interlocker.

Matter examined by consulting engineer and plans approved, and case pending.

No. 450. Michigan Central Railroad Company vs. Board of Trustees of the Town of Dyer.

This was an appeal from an order of the town board of Dyer requiring the Michigan Central Railroad to maintain signal bell at crossing of the railroad at East street in said town. Town visited, this crossing inspected by Commissioner Payne and as recommended by him the appeal was sustained and ordinance was overruled and dismissed. (See No. 452.)

No. 451. Charles Wolf vs. G. R. & I. R. R. Co. Depot Facilities at Valentine.

This case was transferred from the A. R. docket and taken up by Commissioner McClure with the G. R. & I. R. R. with the result that adequate depot accommodations were duly installed at Valentine, and case closed.

No. 452. Appeal from Board of Trustees of the Town of Dyer, Indiana.

In this case the following opinion was rendered and order made:

McCLURE, *Commissioner*:

At a special meeting of the town board of Dyer, Indiana, held on February 24, 1911, the following resolution was adopted:

"Resolved by the Board of Trustees of the Town of Dyer, Lake County, Indiana, That the Michigan Central Railroad Company be and hereby is required to erect and maintain an electric gong as a warning signal to announce the approach of trains approaching from both east and west where its railroad track crosses East street, one of the streets of said town of Dyer, which is crossed by the track of said railroad within said town; said electric gong to signal by sounds of warning whenever a train is approaching and near to said crossing. Said crossing is hereby deemed dangerous, and held so to be by the board of trustees; and this resolution is passed in furtherance of the safety and protection of the public from injury by accidents at said crossing.

"Said electric gong shall be installed and in service not later than the fifteenth day of April, 1911.

"The town clerk is hereby directed to prepare a duly certified copy of this resolution and the record of its adoption, in duplicate, and to deliver the same to the town marshal at once, and the town marshal is directed to serve one copy thereof upon the freight agent of the Michigan

Central Railroad Company at its freight office in the town of Dyer by delivering such copy to said agent, instantler, and to retain the other copy and return it to the clerk with his return of service endorsed thereon."

Notice of the passage of the resolution was served upon the station agent of the appellant company at Dyer, and within the time prescribed by the statute, appellant company filed notice of an appeal from the adoption of the resolution to the Railroad Commission of Indiana. The grounds of appeal as specified in the company's notice thereof are as follows:

"(1) The crossing of the Michigan Central tracks over East street in the town of Dyer is not dangerous;

"(2) There is not sufficient traffic over the crossing of the Michigan Central Railroad Company at East street to justify the installation of the electric gong;

"(3) The resolution is unreasonable."

I visited the town of Dyer and investigated the crossing of the Michigan Central tracks and East street in said town on March 11, 1911.

The tracks of the appellant company pass along the north side of the town of Dyer and the track is on a straight line in either direction from the crossing in question for more than a mile. The right of way at that point and continuously in either direction is a hundred feet wide. The line of the road is in an east and west direction at the town of Dyer. On the north side of the track there is but one dwelling and no other building that may be said to be in part of the town. It is almost a mile to any other building on the north side of the line except one dwelling east of the one above referred to, which is perhaps one-half mile from the crossing in question. The town of Dyer has a population of about two hundred. There is a grist mill located near the right of way of the appellant company immediately south of the tracks at the point of crossing in question. At a distance of about one block to the west there is an elevator located adjacent to the company's right of way, and its station is but a short distance from the elevator. East street at the point of crossing as the same extends north becomes a public highway, which has been graded and macadamized, and is one of the principal thoroughfares leading from the country into the town of Dyer. The country along the line of road is an agricultural district and is quite generally, though not densely, populated. It was learned upon inquiry that the highway and street in question accommodate considerable travel which is largely by automobile, Hammond, East Chicago and Chicago being points of destination of travel in one direction, while Crown Point, the county seat of Lake County, attracts most of the travel in the opposite direction.

The contour of the surface of the country at the point of crossing and in every direction therefrom for considerable distances is quite level, and there is no obstruction to the view of approaching trains when a traveler reaches the point of the right of way, except to the east, where at a distance of between a quarter and a half mile a tool-house to some extent obstructs the view. If this were removed a train could be seen approaching in either direction for as much as a mile. In approaching the tracks from the south the station building, which is a block to the west, would

obstruct the view in that direction of an approaching train until one arrived near the track.

The train movement over appellant's road at this point is ten trains per day, five trains in each direction. Four of the ten trains are passenger trains which stop at this point. All of the trains except two pass Dyer during the day time.

Two other lines of railway pass through Dyer, namely, the E., J. & E., which is double tracked, and the C., I. & L. The E., J. & E. parallels through Dyer the Michigan Central and is south of the former track about five or six hundred feet. This road has an electric gong installed at this crossing, but the obstructions in the way of buildings extending to the right of way and the train movement is quite heavy.

The C., I. & L. crosses the principal street passing east and west through Dyer at a point where the right of way of the company is not seriously obstructed. The train movement over the C., I. & L. reaches thirty per day.

The town marshal and a member of the board of trustees were present and advised as to the conditions surrounding the crossing and the necessities for a signal bell at this point, viewed from the standpoint of the town. No accidents were known to have occurred at this crossing, although the road had been operated at that point for many years.

The cost of installation of a signal bell would be approximately \$350. with an annual maintenance cost of \$70. It is the experience of railroad men that considerable attention must be given to signal bells in order that they may not fail in operation. This is particularly true in damp, wet weather, and even with considerable care the gongs will fail to sound the alarm when trains are passing, and in such cases the protection thus afforded is deceptive and objectionable.

The crossing is not a dangerous one by reason of obstructed vision, number of trains or their rapidity of operation at this point, nor is the volume of travel over the street at the crossing heavy, but only of such amount as would be attracted to a town of the size of Dyer, and some additional travel that passes beyond that point in either direction. It is not believed that the hazards existing at this crossing are any greater than at a country highway crossing where the same is accommodating considerable travel, and I recommend that the resolution above referred to be overruled.

ORDER.

Be It Remembered, That on the fourteenth day of February, 1911, appellant railroad company appealed from the action of the town board of the town of Dyer, Indiana, in enacting an ordinance requiring the Michigan Central Railroad Company to install and maintain a signal bell at the crossing of its road with East street in said town; that a member of the Railroad Commission of Indiana visited the town of Dyer and inspected said crossing and reported the facts concerning said crossing, with a recommendation that said ordinance enacted by the town of Dyer requiring the Michigan Central Railroad to install and maintain a signal bell at the crossing of East street with said railroad track be and is in all things hereby overruled.

No. 453. William O'Keefe vs. New York Central Railroad Company.

This case was dismissed on account of error made by petitioner; the same issues were presented and decided in No. 457, which see.

No. 454. William O'Keefe vs. L. S. & M. S. Ry. Co.

This case was dismissed on account of error made by petitioner; the same issues were presented and decided in No. 457, which see.

No. 455. Angola Brick & Tile Co. vs. L. S. & M. S. and Wabash Railroad Companies. Rates on Brick and Tile.

The same issues being involved in No. 463, which see. This case was dismissed.

No. 456. B. & O. R. R. Co. vs. C., I. & L. Interlocker at Alida.

Petition for an interlocking plant at Alida. Matter referred to consulting engineer and, on the coming in of his report, plant approved.

No. 457. William O'Keefe vs. Michigan Central Railroad Company.

This case involved the rates on crushed stone from respondent's yards in the city of South Bend to the Notre Dame switch and the Studebaker siding. The case was heard on April 11, 1911, and the following order made establishing a switching charge for the service performed instead of a road charge. Order is as follows:

The above case having been investigated by the Commission, and petitioner and respondent having been heard by counsel and witnesses, and the Commission being fully advised, upon consideration—

It Is Ordered, That respondent shall cease and desist on the first day of June, 1911, and for two years thereafter, from charging and collecting the sum of 40 cents a ton on crushed stone in carloads from respondent's yards at the Lake Shore crossing in the city of South Bend, to the Notre Dame switch, and to the Studebaker Siding, at Cheese, Ind., about three miles from South Bend on the Benton Harbor division.

And respondent having advised the Commission that it is willing to so extend its switching limits, it is further ordered that respondent's switching limits in South Bend shall be extended from the Michigan Central passenger station on the south to the cattle chutes on the north, including all side-tracks between these points; and that for switching cars of crushed stone within said switching limits for two years from and after June 1, 1911, the rate and charge shall be not exceeding \$5.00 a car.

It Is Further Ordered, That on the first day of June, 1911, and for two years thereafter, the rate to be charged and collected by respondent on crushed stone in carloads from respondent's yards in the city of South Bend to the Notre Dame switch and to the Studebaker switch at Cheese, Ind., shall be 20 cents a ton.

It Is Further Ordered, That a copy of this order shall be mailed by the Secretary to the petitioner and respondent.

No. 458. Bloomington-Bedford Stone Co. vs. Indianapolis Southern Railroad Company.

Before the hearing respondent satisfied the petition by agreeing to perform the service complained of at a switching charge of \$3.00 a car instead of 3 cents per 100 pounds as is now charged; thereupon an order was made dismissing the case and matter closed.

No. 459. James W. Fortune vs. C., C., C. & St. L. Ry. Co.

The opinion rendered and order made by Commissioner Payne are as follows:

"The above case refers to depot conditions and facilities at Jeffersonville, and about which complaint was first made to the Commission on July 7, 1910. This case was set for trial, and formally heard on April 22, 1911, Mr. Frank Littleton representing the defendant and Mr. James Fortune appearing for the city of Jeffersonville. Mr. Littleton at that time claimed that the Louisville and Jeffersonville Bridge Co. maintained the station at Jeffersonville, and that the complaint should have been directed to that company instead of the C., C., C. & St. L. Ry. Co. Mr. Moore, superintendent of the Louisville and Jeffersonville Bridge Co., was present, however, and the Commission proceeded to take evidence in this case. Since the hearing the Commission has had correspondence with Mr. Littleton on this subject, which indicated that his company was aware that conditions at Jeffersonville should be remedied, but that the C., C., C. & St. L. would like to join with the B. & O. S-W. at that point for a joint station. There has been no complaint filed with this Commission relative to station conditions of the B. & O. S-W. at Jeffersonville. The C., C., C. & St. L. station at that point is located on the approach of the Louisville and Jeffersonville Bridge Co., about two squares north of the Ohio River. In order to reach this station, a flight of stairs consisting of about eighty steps, or a street car must be taken. The station is small, and is not provided with separate closets for men and women, and has only one small waiting room. It is impossible to get baggage up and down these stairs without a great deal of labor and inconvenience, and from the evidence is entirely inadequate to supply the wants of the city of Jeffersonville and the contiguous territory, which consists of from 15,000 to 20,000 people. The C., C., C. & St. L. Ry. Co. also have ground in the northern part of the city where a suitable station, convenient for the public could be erected.

After careful consideration, the following order was made:

ORDER.

The evidence in the above entitled case having been heard, and the Commission being fully advised—

It Is Therefore Ordered, That within sixty days of the date of this order, the C., C., C. & St. L. Ry., begin the construction of a depot at Jeffersonville, which will be adequate for the wants of the community, and that the same be constructed within six months from the date of this order.

It Is Further Ordered, That the C., C., C. & St. L. submit plans of this station to the Railroad Commission of Indiana for its approval within the next sixty days.

No. 460. Joseph Trowbridge et al. vs. B. & O. S. W. R. R. Co.
Train Service at Georgia.

In this case, the following opinion was rendered and order made:

This is a petition filed by Joseph Trowbridge and others against the train service east out of Georgia, on the Baltimore and Ohio Southwestern Railroad Company and a request that train No. 4, east bound, due at Georgia at 7:50 a. m., stop at that point for passengers. The case was assigned for hearing May 12th, and heard in the rooms of the Commission. Mr. Joseph Trowbridge appeared for the plaintiff and Mr. C. K. Tharp, attorney, appeared for the defendant.

From the evidence introduced, the Commission concludes that the local service is adequate for the wants of the town of Georgia, but that the accommodations for through service to points to and beyond Indianapolis, Chicago, Louisville and Cincinnati are inadequate, and an order will be entered accordingly.

In the above entitled case it is ordered and directed by the Commission that within thirty days after the twenty-ninth day of May, 1911, the Baltimore and Ohio Southwestern Railroad Company stop its train No. 4, east bound, due at Georgia about 7:50 a. m., on flag to receive passengers for Indianapolis, Chicago, Louisville and Cincinnati and points beyond.

No. 461. Wm. H. Etter vs. Indianapolis Southern Railroad Company. Passenger and Freight Facilities at Providence.

Pending.

No. 462. E. & T. H. R. R. Co. and Others vs. Southern Railway and Evansville & Princeton Traction Line. Interlocker at Princeton.

Plans for interlocker filed, examined by the consulting engineer of the Commission, his report approved by the Commission, and case pending.

No. 463. Angola Brick & Tile Company vs. L. S. & M. S. and Wabash Railroad Companies.

In this case the following order, showing that an agreement had been reached, was made:

WHEREAS, An agreement was reached between the petitioners and respondents herein that a joint rate should be established between the Lake Shore and the Wabash railroads whereby petitioners could ship brick and tile from Angola to points on the Wabash Railroad in Lagrange and Steuben counties within the State of Indiana, and said joint rate is established by a tariff filed with the Commission, the said petitioners file a dismissal of their petition without prejudice in words as follows:

"Come now the petitioners in said above entitled cause and move the Commission to dismiss said petition without prejudice."

WHEREFORE, In consideration of these matters, the Commission sustains said motion, and said petition is dismissed without prejudice.

No. 464. Grand Trunk Railway Company vs. C., C., C. & St. L. Ry. Co. Interlocker at Granger.

Blue prints duly filed, submitted to consulting engineer; reported by engineer, and approved by the Commission.

No. 465. Kokomo, Marion & Western Traction Company vs. L. E. & W. and P., C., C. & St. L. Ry. Cos.

On May 29, 1911, this case came on for hearing and it appearing that necessary parties have not been made respondents, the case was dismissed.

No. 466. Indianapolis & Cincinnati Traction Company vs. C., C., C. & St. L. Ry. Co. Installation of Gate at Crossing of Industrial Track of the C., C., C. & St. L. at Fairland.

This case was referred to Commissioner Payne, and the following order and modified order were made:

Comes now the Indianapolis and Cincinnati Traction Company, by Charles L. Henry, its president, and files a petition for the installation of a gate at the point of crossing of said company's line of railroad with the industrial track of the C., C., C. & St. L. Ry. Co. at Fairland, Indiana, and said industrial track is not parallel with the main track of said C., C., C. & St. L. railroad and is not regularly used by trains or cars carrying passengers, and also files blue print showing the plan of construction and operation of said gate; and when said gate is installed that said Indianapolis and Cincinnati Traction Company shall have the right to run said crossing without stopping its cars.

And the Railroad Commission of Indiana, being advised in the premises, finds that said device is suitable and sufficient to protect said

crossing, and it is therefore ordered that said gate, as shown on the blue print submitted herewith, is approved by the Commission for the purpose intended, and that the normal position of said gate shall stand at clear for the Indianapolis and Cincinnati Traction Company's cars and shall be maintained by said Indianapolis and Cincinnati Traction Company.

MODIFIED ORDER.

Comes now the I. & C. Traction Company and shows to the Commission that the device heretofore approved by the Commission to be used to protect the crossing of said company's line of road with the industrial track of the C., C., C. & St. L. Ry. Co. at Fairland, Indiana, cannot be operated successfully in accordance with the plans and blue print intended to govern the installation of said device at said point; and whereas said company submits to the Commission plans and prints to govern and control the installation of a device or gate to protect said crossing that does provide a successful method of operation of such device, and it also appearing that said plans and prints have the approval of the signal department of the C., C., C. & St. L. Ry. Co.

Therefore It Is Ordered, That the original plans and prints herein be reconsidered and set aside and the plans and prints filed of the date of June 20th, be and the same are approved as governing the installation device or gate for the protection of said crossing in the manner specified in the original order.

No. 467. Grand Rapids and Indiana Railway Company vs. Board of Trustees and Town Clerk of Lagrange.

This was an appeal from the town board requiring the railroad company to construct and maintain gates where said railroad company's tracks cross Spring street in the town of Lagrange. The following opinion was rendered and order made:

McCLURE, *Commissioner*:

The town of Lagrange, through its board of trustees, on the 1st day of May, 1911, passed a resolution requiring the Grand Rapids and Indiana Railway Company to construct and maintain gates where said railway company's track crosses Spring street in said town of Lagrange, the same to be opened and closed by the company's employes whenever a train or cars or locomotive engine is passing over said street. That said gates shall be of such character as is in general use in said State of Indiana by railroad companies at street crossings, and shall be installed and in service at a date not later than August 1, 1911. The resolution also declared the crossing in question to be dangerous.

The railroad company on the seventeenth day of May filed with the Railroad Commission of Indiana an appeal from the resolution above referred to. The grounds of appeal stated by the railroad company are briefly as follows:

(1) That said resolution is so uncertain and indefinite as to what is required of this Grand Rapids and Indiana Railway Company that it is

void in that said resolution does not grant and the town of Lagrange has not granted to the railway company any authority to place or maintain any posts, bars or other structures within the limits of said Spring street; that said street is sixty-six (66) feet wide, so that it is impracticable to build on private grounds of the railroad company outside of said street gates, as required by the resolution, which can be shut so as to close said street.

(2) That the view of the railroad track north of the Spring street crossing when approaching it along and upon Spring street from either direction is unobstructed; and that the view of such track toward the south is unobstructed when approaching it along Spring street from the east for a distance in both instances; that the crossing is not more dangerous without gates than it would be if gates should be installed and operated; that the only serious obstructions to the view of the crossing when approaching it on said highway from the west is an old warehouse building at the southwest angle of intersection of Spring street and the railroad right of way, which building stands and has long stood in and upon Walnut street, a public street in said town of Lagrange, to its full width of thirty-six feet at the north and adjoining Spring street, and to its full length of eighty-five feet along the east part of said Walnut street, and which now unlawfully stands in said street, by sufferance of the town board of Lagrange; and that said town board, by performing its public duty and causing said obstruction to be removed out of Walnut street, can make said crossing safe without gates to a degree far greater than would or could be accomplished by gates as commanded by the resolution.

(3) That the town of Lagrange is an incorporated town of less than 1,000 inhabitants, of which the business district and more than four-fifths of the population live west of the company's railroad tracks and not more than one-fifth live east thereof.

(4) That said town of Lagrange has no large manufacturing establishments, but is the center of a farming community and has only two railroads, one of which does an interurban business and extends only from the town of Angola, a distance of forty miles, to the village of Middlebury, and crosses the town of Lagrange from the east toward the west about one-half mile north of said crossing.

(5) That said resolution assumes to require the maintenance and operation of gates at the Spring street crossing throughout the entire twenty-four hours; whereas, no passenger trains are run over said crossing which do not first stop at the passenger depot immediately north of said crossing and within one hundred feet from it between the hours of 5:57 p. m. and 3:54 a. m. of each day.

(6) Said crossing is manifestly not dangerous during the hours of the night when travel on the street ceases and when the railroad company runs no trains over the crossing without stopping, and the resolution declaring the crossing dangerous and ordering gates throughout the hours of the night and from 6:00 p. m. until 6:00 a. m. of the next day is unreasonable and void.

(7) That while Spring street leads from the business district of the town of Lagrange to the railroad depot, and is paved with brick from

said business district to the west side of the railroad track, a distance of two squares, it is not paved eastward therefrom, and extends eastward from the railroad crossing only a distance of two squares to Canal street, which crosses it, running toward the north, and thence extends eastward two squares to the door-yard of S. K. Ruick; but that there is no street or highway opened for travel toward the south from said Spring street east of said tracks, and no street or highway except the said Canal street open for travel from Spring street toward the north at any point east of said tracks, and no street or highway open toward the east from the point where said Spring street ends at Mr. Ruick's door-yard.

(8) That the chief travel over and across Spring street crossing is by persons going to and from the ball park and to and from the railroad freight depot; that neither said ball park nor said freight depot is open nor can either be visited from the hour of 6:00 p. m. each day until after the hour of 6:00 a. m. the next morning, and travel across the railroad track at said Spring street crossing almost wholly ceases throughout each night between said hours.

(9) That Spring street does not open out upon any highway running east or south except a few short by-streets that end in cul de sacs, and does not open toward the north except over a single traveled street which runs into and communicates at the distance of one square north with Michigan street, which also leads directly into the business part of the town, and by which the paved streets can be reached in as short a distance as they can by turning off to Spring street.

(10) That Michigan street extends only about four squares east from said crossing in the town of Lagrange and thence out into the country a distance of only about a mile and a half, where it intersects a north and south road.

(11) That said crossing is located a very short distance, to wit, 100 feet, south of this company's railroad depot, and that nearly all trains passing through the town of Lagrange stop at said depot.

(12) That said town of Lagrange has electric light furnished to it only until the hour of 12:00 p. m., and that substantially all the business establishments therein are usually closed at or before 9:00 o'clock p. m., and that after said hour there is very little, if any, travel over said crossing at night; and that said business and travel does not recommence before 6:00 o'clock in the morning; and that between the hours of 9:00 o'clock p. m. and 6:00 o'clock a. m. on each night there is no danger in the use of said crossing in its present condition.

(13) That no business of manufacturing, hauling or driving for business purposes passes over said crossing between the hours of 6:00 p. m. and 6:00 a. m. of each night; and substantially all the driving upon, over and across said crossing is done between 6:00 o'clock a. m. and 6:00 o'clock p. m. at all times.

(14) That travel over said crossing almost entirely ceases at 6:00 p. m. on each day and does not recommence until 7:00 a. m. the next morning, and a resolution requiring gates to be operated throughout the entire night is unreasonable.

As required by the statute, on behalf of the Commission, I visited the crossing in question on the nineteenth of May.

The crossing in question is located immediately south of the depot grounds of the railway company. Spring street is a paved street with brick from the business center of the town to the west side of the crossing in question; it is sixty-six feet wide, and the principal obstruction is located in the southwest angle of the intersection of said street by said railway, which consists of an old warehouse standing between the railroad track and Walnut street in said town. That a portion of said building is located in said Walnut street, and it was shown that said building would be moved and that action had already been taken to bring about that result. The town of Lagrange has a population of approximately 1,800, the major portion of which, probably four-fifths, is located west of the railroad tracks which pass through the town in a north and south direction. All the business portion is located west of the tracks except the freight house of the railroad company and some coal sheds.

In crossing the tracks on the street in question when coming from the east sufficient clearance is had in order to see the approach of cars or trains in either direction except when the freight cars should be left standing upon the siding on the east side of the track. In crossing the tracks from the west, the obstruction of the old warehouse referred to is sufficient to obscure the view of the track from the south until quite near the rails, the removal of which and the location of the siding on the west side of the track in such manner as to leave the cars some distance from the street would permit a view of cars and trains approaching from the south for a sufficient distance to avoid collisions upon the crossing.

Passenger trains, unless it be through excursions, all stop at this point and necessarily proceed at slow speed when passing over this crossing. The time-table shows fifteen trains daily scheduled at Lagrange. Frequently these trains are run in sections and sometimes extra trains are run. At this time the train movement is lighter than at other seasons of the year. In January the regular movement of trains at this point was twenty-five per day. The trains in the main pass Lagrange in the daytime. There are two trains between 3:00 and 4:00 o'clock in the morning, one at 9:48 and one at 10:15 p. m.

The principal travel over Spring street in said town with vehicles originates most largely in the country, and this travel is almost wholly between the hours of sunrise and sunset and is very largely occasioned by farmers hauling grain to the warehouse located on Walnut street just south of Spring street.

Spring street extends but two squares east of the crossing in question, and there is very little travel east of the railroad originating upon this street that has occasion to use the crossing in question in passing to the business section of the town.

The resolution passed by the town board requires gates to be operated when trains, cars or engines may be passing over the street. This would necessitate the maintenance of gatemen at this point during all hours of the day and night, particularly so at such periods of the year when the train movement is heavy, and also during that portion of the year when the movement is light, which is in the summer time, on account of the

fact that frequent excursion trains are run over this road to points in Michigan.

The operation of the gates during the hours of the night under the conditions of travel over this street would be unnecessary and would impose upon the railroad company a useless burden in maintaining a gate-man during such hours.

The crossing in question is not wholly without danger, due to the fact that temporary obstructions in the way of box cars are permitted at times to remain upon the siding upon either side of the street, and the fact that switching is done across the street on the east side of the main track; and as an evidence of the dangerous condition of the crossing, not long since a man was struck while attempting to drive over the crossing and killed. Except for the unusual requirement of operation of the gates during all hours of the day and night the ordinance would meet the approval of the Commission.

In view of the unnecessary rigor of the resolution and the fact that the railroad company assigns as a ground of appeal the requirement of the resolution to operate the gates at all hours of the day and night as unreasonable, it is recommended that the ordinance be overruled for such reason and that an order be entered to that effect.

ORDER.

WHEREAS, The board of trustees of the town of Lagrange did on the first day of May, 1911, enact a resolution requiring the G. R. & I. Ry. Co. to construct and maintain gates where said railway company's tracks cross Spring street in said town of Lagrange, the same to be opened and closed by the company's employes whenever a train or cars or locomotive engine is passing over said street; and that said gates shall be installed and in service at a date not later than August 1, 1911, and declaring the crossing in question to be dangerous; and

WHEREAS, Said railway company on the seventeenth day of May filed with the Railroad Commission of Indiana an appeal from the resolution above referred to; and

WHEREAS, As a ground of appeal the railway company alleges that the town of Lagrange has no large manufacturing establishments, and that there is no hauling or driving for business purposes passing over said crossing between the hours of 6:00 p. m. and 6:00 a. m. of each night, and that substantially all the travel over and across said crossing is done between the hours of 6:00 a. m. and 6:00 p. m. at all times; and also, that said crossing is manifestly not dangerous during the hours of the night when travel on the street ceases and when the railway company runs no trains over the crossing without stopping, and the resolution declaring the crossing dangerous and ordering gates throughout the hours of the night, and from 6:00 p. m. until 6:00 a. m. of the next day is unreasonable and void; and

WHEREAS, A member of the Railroad Commission of Indiana visited said crossing, as required by the statute, and inspected the same, and reported to the Commission recommending that said ordinance be overruled on the grounds pending on appeal by said railway company as above set out; and,

WHEREAS, Said Commission approved said report.

It Is Therefore Ordered, That the ordinance of the town of Lagrange requiring the Grand Rapids and Indiana Railway Company to install and maintain gates at the crossing of Spring street in said town by said railway company be and the same is hereby overruled.

No. 468. Grand Rapids and Indiana Railway Company vs. Board of Trustees and the Town Clerk of Lagrange.

Appeal from resolution ordering the construction and maintenance of gates at Michigan street crossing in said town. In this case the following opinion was rendered and order made:

McCLURE, *Commissioner*:

On May 1, 1911, the board of trustees of the town of Lagrange adopted the following resolution:

"Be It Resolved by the board of trustees of the town of Lagrange, Indiana, That the following railroad crossing in the town of Lagrange, Indiana, to wit: Where the track of the Grand Rapids and Indiana Railway Company crosses Michigan street in the town of Lagrange, Indiana, is considered and deemed to be dangerous and held to be so by the board of trustees of the town of Lagrange, Indiana.

"Be It Further Resolved by the board of trustees of the town of Lagrange, Indiana, That the Grand Rapids and Indiana Railway Company be and hereby is required to erect, construct and maintain proper gates where its said railroad track crosses said Michigan street in said town of Lagrange, Indiana, to be opened and closed by its, said railway company's, employes whenever a train or cars or locomotive engine is passing over said street. That said gates shall be of such character as is in general use in said State of Indiana by railroad companies at street crossings, and shall be installed and in service at a date not later than August 1, 1911."

Within the time prescribed by the statute the railway company took an appeal to the Railroad Commission of Indiana from the action of the town board in the adoption of said resolution, and assigned a number of grounds of appeal, which are as follows:

(1) That said resolution is so uncertain and indefinite as to what is required of this Grand Rapids and Indiana Railway Company that it is void in that said resolution does not grant and the town of Lagrange has not granted to this company any authority to place or maintain any posts, bars or other structures within the limits of said Michigan street; that many gates at railroad crossings are constructed with large posts set in the street outside of the sidewalk line from which bars are made to project which are raised or lowered to open and shut the passageway; and the gates in use by railroad companies at street crossings in Indiana are of many kinds and constructed in many ways; and that said street is sixty-six feet wide, so that it is impracticable to build on the private grounds of this railroad outside of said street gates, as commanded by said resolution, which can be shut so as to close said street.

(2) That the town of Lagrange is an incorporated town of less than

1,800 inhabitants, of which the business district and more than four-fifths of the population live west of this company's railroad tracks and not more than one-fifth live east thereof.

(3) That said town of Lagrange has no large manufacturing establishments, but is in the center of a farming community and has only two railroads, one of which does an interurban business and extends only from the town of Angola, a distance of forty miles, to the village of Middlebury, and crosses the town of Lagrange from the east toward the west about one-half mile north of said crossing.

(4) That Michigan street extends only about four squares east from said crossing in the town of Lagrange and thence out into the country a distance of about one mile and a half, where it intersects a north and south road, and that the principal travel from the town of Lagrange to the north and northeast, and the east and southeast parts of the county cross this company's railroad tracks at other highway crossings.

(5) That said resolution assumes to require the maintenance and operation of gates at the Michigan street crossing throughout the entire twenty-four hours, whereas no trains are run over said crossing which do not first stop at the passenger depot immediately south of said crossing and within two hundred feet from it between the hours of 9:45 p. m. and 10:10 p. m. of each day.

(6) Said crossing is manifestly not dangerous during the hours of the night when travel on the street ceases and when the railroad company runs no trains over the crossing without stopping, and the resolution declaring the crossing dangerous and ordering gates throughout the hours of the night and from 6:00 p. m. until 6:00 a. m. of the next day is unreasonable and void.

(7) That said crossing is located a very short distance, to wit, 200 feet north of this company's railroad depot, and that nearly all trains passing through the town of Lagrange stop at said depot.

(8) That the said town of Lagrange has electric light furnished to it only until the hour of 12:00 p. m., and that substantially all the business establishments therein are usually closed at or before 9:00 o'clock p. m., and that after said hour there is very little, if any, travel over said crossing at night; and that said business and travel does not recommence before 6:00 o'clock in the morning; and that between the hours of 9:00 o'clock p. m. and 6:00 o'clock a. m. of the next day on each night there is no danger in the use of said crossing in its present condition.

(9) That no business of manufacturing, hauling or driving for business purposes passes over said crossing between the hours of 6:00 p. m. and 6:00 a. m. of each night; and substantially all the driving upon, over and across said crossing is done between 6:00 o'clock a. m. and 6:00 o'clock p. m. at all times.

(10) That travel over said crossing almost entirely ceases at 6:00 p. m. on each day and does not recommence until 7:00 a. m. the next morning, and a resolution requiring gates to be operated throughout the entire night is unreasonable.

(11) That said crossing is of such a location and character as that the street and railroad tracks and said crossing have existed for more than eighteen years in their present location and the surroundings have

existed in their present condition for more than eighteen years and no injury to person or property by a collision between a vehicle or traveler and a train on said railroad has ever occurred at said crossing.

On the nineteenth of May I visited the town of Lagrange and inspected the crossing in question.

Michigan street is one of the principal thoroughfares of the city of Lagrange, crossing the G. R. & I. railroad tracks one square north of Spring street and about two hundred feet north of the passenger station on said road. In approaching said crossing from the east there is no substantial obstruction to the view along the track of said railroad. In approaching the same from the west an old warehouse is in the southwest angle of the street and railroad intersection that obstructs the view to the west to a considerable extent; that in the northwest angle of the intersection of the street and railroad is located a water-works plant that is an obstruction to the approach of trains from the north. Michigan street extends eastward several squares, where it enters a country highway that extends eastward into the rural districts of the county of Lagrange. The street accommodates travel to and from the country in easterly and northeasterly directions, and the larger per cent. of travel over this crossing is what may be regarded as country travel to and from the town of Lagrange, although there is some travel in light vehicles passing over the crossing that is of an urban character.

The movement of practically all passenger trains at this point is slow, as the station is located between Michigan street and the next parallel street south thereof.

It is probable that the warehouse in the southwest angle will not long remain as an obstruction to the view of trains from the south, as the same is unoccupied and scarcely in a condition for future use.

The town of Lagrange has a population of approximately 1,500, and possibly one-fifth is located east of the crossing in question. The entire business district of the town and approximately four-fifths of the population is west of the line of the G. R. & I. railroad which passes through the town.

At this time there are approximately sixteen trains daily over the G. R. & I. railroad. The most of these trains pass this point during the daylight. There are two trains between 3:00 and 4:00 in the morning and two between 9:00 and 10:00 at night. The travel by means of vehicles ceases during the early hours of the evening and is not resumed before 7:00 o'clock in the morning. There would be no necessity for the operation of gates at this crossing during the hours of the night.

By the terms of the resolution the company is required to maintain and operate the gates at all hours of the day and night when trains, cars or locomotives are passing over the crossing.

During certain seasons of the year the traffic upon this line of road is heavier than at others, it being shown that in the month of January the movement is as great as twenty-five trains per day. In the summer season excursion trains are run frequently over this line of road to points in Michigan, and such trains frequently pass this point during the hours of the night, and even though there would be intervals of several hours

during the night when no train would pass through Lagrange, the company would be required to maintain gatemen in order that the gates might be operated at such times as the resolution stipulates. The requirement that the company maintain gatemen over a period of practically twelve hours without any real or substantial reason is an unreasonable requirement and such a regulation should not be enforced against the company.

While the crossing is in a measure dangerous and some reasonable protection might justly be required, yet the requirements of the resolution in this instance exceed a just and reasonable degree of protection at the hands of the company. The proper limitation of the operation of the gates at this crossing to the hours of travel and consequent danger would relieve it of serious objection.

Inasmuch as the sixth ground of appeal alleges that the crossing is manifestly not dangerous during the hours of the night when travel on the street ceases and when the railroad company runs no trains over the crossing without stopping, and the resolution declaring the crossing dangerous and ordering gates throughout the hours of the night from 6:00 p. m. until 6:00 a. m. of the next day is unreasonable and void, is sustained by the facts surrounding the case. It is therefore recommended that the resolution of the board of trustees of the town of Lagrange requiring the G. R. & I. Railway Company to maintain gates at Michigan street crossing in said town be overruled and an order be entered accordingly.

ORDER.

WHEREAS, The board of trustees of the town of Lagrange did on the first day of May, 1911, enact a resolution requiring the Grand Rapids and Indiana Railway Company to construct and maintain gates where said railway company's tracks cross Michigan street in said town of Lagrange, the same to be opened and closed by the company's employes whenever a train or cars or locomotive engine is passing over said street; and that said gates shall be installed and in service at a date not later than August 1, 1911, and declaring the crossing in question to be dangerous; and

WHEREAS, Said railway company, on the seventeenth day of May, filed with the Railroad Commission of Indiana an appeal from the resolution above referred to; and

WHEREAS, As a ground of appeal the railway company alleges that the town of Lagrange has no large manufacturing establishments, and that there is no hauling or driving for business purposes passing over said crossing between the hours of 6:00 p. m. and 6:00 a. m. of each night, and that substantially all the travel over and across said crossing is done between the hours of 6:00 a. m. and 6:00 p. m. at all times; and also, that said crossing is manifestly not dangerous during the hours of the night when travel on the street ceases and when the railway company runs no trains over the crossing without stopping, and the resolution declaring the crossing dangerous and ordering gates throughout the hours of the night, and from 6:00 p. m. until 6:00 a. m. of the next day, is unreasonable and void; and

WHEREAS, A member of the Railroad Commission of Indiana visited said crossing as required by the statute, and inspected the same, and

reported to the Commission recommending that said ordinance be overruled on the grounds pending on appeal by said railway company as above set out; and

WHEREAS, Said Commission approved said report—

It Is Therefore Ordered, That the ordinance of the town of Lagrange requiring the Grand Rapids and Indiana Railway Company to install and maintain gates at the crossing of Michigan street in said town by said railway company be and the same is hereby overruled.

No. 469. Block Signals on the C., I. & L. Ry. Co.

In this matter said railroad company having filed its plans and specifications for an automatic block system on its line from Hammond to Indianapolis, the Commission approved the same.

No. 470. City of Jeffersonville, Indiana, vs. C., C., C. & St. L. Ry. Co. and Louisville & Jeffersonville Bridge Co. Station Facilities.

This was a petition for depot facilities in the city of Jeffersonville. The case was heard by the Commission, order made, and a petition for rehearing filed, rehearing granted, and case pending.

No. 471. Lower Vein Coal Company, In the Matter of Constructing Coal Tipples Within Sufficient Clearance.

May 18, 1911, petition filed and heard by the Commission, and order made allowing construction of coal tippie within sufficient clearance to the extent that the Commission being advised that such construction was not dangerous to trainmen statutory penalties would not be enforced.

No. 472. In the Matter of Constructing Coal Tipples by O. S. Richardson, at Brazil.

Order in this case similar to order made in the above case.

No. 473. Baltimore & Ohio Railroad Company. Application to Approve Clearances.

Case pending.

No. 474. Albert Cottingham et al. vs. Cincinnati, Lawrenceburg and Aurora Electric Street Railroad Company. Train Service and Station Facilities at Valley Junction.

This matter was taken up by the Commission in an earnest effort to get better facilities, but being unable to do so by negotia-

tion, and it being shown that the matter affected the movements of trains from the State of Indiana into the State of Ohio over which the Commission had no jurisdiction, the case was dismissed.

No. 475. J. C. Mitchell et al. vs. C., C., C. & St. L. Ry. Co.

In this case the following opinion was rendered, and case dismissed:

McCLURE, *Commissioner*:

In this case the petitioners allege that the respondent company does not maintain a depot at Emporia, a village located in Madison County on the Michigan Division of the C., C., C. & St. L. Ry.

The evidence disclosed the following state of facts: The company operates four passenger trains daily over the portion of the line known as the Southern Extension of the Michigan Division of the respondent's line, and on which is located the station in question. Three of the trains stop on flag only. Considerable live stock is shipped to and from this point, and all cars must be ordered from Markleville, the nearest station, which is located two miles south of Emporia. No station building is maintained nor is there any provision made to take care of LCL freight. During the past year milk has been shipped in cars from Emporia principally to Indianapolis, and no loading platform is provided for this business. The shipper is required to be present and assist in loading each shipment. Passengers desiring to take trains at this point must flag the trains themselves in order to secure passage. The village has a population of eighty-one, but a rural territory three by six miles is served by the railroad at this point.

The revenues derived by the company at this point for the twelve months ending June 1, 1911, are as follows:

Freight outbound, 131 cars, revenue.....	\$3,014 68
Freight inbound, revenue	267 75
LCL freight inbound, revenue.....	113 58
LCL freight outbound, revenue.....	2 00
Milk, revenue	135 21
Total	\$3,533 22

The construction of a station building would cost approximately from \$1,000 to \$1,200 and the salary of an agent would be from \$40 to \$50 per month.

The revenue to be credited to the Michigan Division is but a portion of the sum above stated, as nearly all of the stock shipped goes to Chicago or points east, the major portion of this revenue goes to connecting lines.

Superintendent Blizzard was requested to propose improved facilities at this point, and I am advised that the company will employ Mr. Hoel, a merchant whose store is located adjacent to the right of way and near the siding at that point, to permit his store room to be used by passengers as a waiting-room; that he will flag all trains and will take care of LCL

freight at that point; that a box car will be provided to house the freight; that telephone service will be maintained to order cars through Markleville station and to advise passengers of the arrival of trains; that stock pens will be properly maintained, and a loading track to facilitate the handling of milk and cans will be provided.

This will be a substantial improvement in facilities at this point, and is a substantial compliance with the demands of the patrons of the company at that point. I therefore recommend that upon providing the additional facilities above enumerated the petition herein be dismissed.

No. 476. In the Matter of Increased Minimum Charge on Single Packages or Small Lots of Freight, Said Increase Being Made in Supplement No. 5 to Official Classification No. 37 I. R. C., No. O. C. 37, in Rules 15-B and 15-C of Said Supplement.

In this case the following opinion was rendered and order made:

Wood, Chairman:

On the nineteenth day of May, 1911, Supplement No. 5 to Official Classification No. 37 was filed with this Commission, increasing among other things the minimum rates on freight on the railroads in this State, generally from 25 cents to 35 cents for each single package. No previous advice of this general increase in the rate on all small packages of freight was given to the Commission; no conference was had with the Commission with reference to it; and no reason was given by the Official Classification Committee, or by the carriers, nor has any reason been given since for making this general increase in the rate on the movement of small packages of freight in this State.

In accordance with the Railroad Commission Act, which devolves on this Commission the duty to supervise all railroad tariffs, that abuse and extortions in freight rates may be prevented, and in the exercise of the power conferred by Chapter 186 of the Acts of 1911, approved March 4, 1911, conferring upon this Commission the power to suspend schedules filed with us for new individual or joint classifications, we made an order on the second day of June, 1911, suspending the effective date of said Supplement No. 5, so far as rules 15-b and 15-c were concerned, to July 31, 1911. At the same time we set this matter down for hearing on the twenty-ninth day of June, 1911. Afterwards, on the application of a committee of the carriers interested in this proceeding, we postponed the hearing from June 29 to July 31, 1911; and, still further on, we made an order postponing the effective date of said Supplement No. 5, so far as rules 15-b and 15-c are concerned, to August 28, 1911.

After making said order of June 2, instituting this proceeding, we have been from time to time importuned by letters and telegrams and long distance telephone messages from the Official Classification Committee in New York City, to be allowed to withdraw said Supplement No. 5. This we declined to do. Afterwards, and often, we have been importuned by general freight agents, traffic managers, and counsel of the railroad com-

panies, to be allowed to withdraw Supplement No. 5 and to abate this hearing. The reason generally given for these requests, is that the Interstate Commerce Commission has taken jurisdiction of this matter so far as interstate rates are concerned, and has postponed the effective date of said Supplement No. 5 to Official Classification No. 37, so far as the same is involved in this proceeding, to October 15, 1911.

The hearing of this matter was duly taken up at 10 a. m., July 31st. The carriers appeared by a committee consisting of Samuel O. Pickens, Edw. Barton and F. L. Littleton, attorneys, and filed a paper stating that inasmuch as the carriers had filed a supplement re-establishing a rate of 25 cents, that this Commission was therefore without jurisdiction and had no power to proceed further in this matter. The Commission overruled this plea and thereupon the committee withdrew without further showing.

In the consideration of these urgent requests to withdraw this supplement, and of the insistence of the carriers to be allowed to file here additional supplements re-establishing temporarily or for a longer time, at their option, the rate of 25 cents per hundred pounds on single packages, no reason has been given to the Commission to show that it may not so understand and comprehend the matters involved in this proceeding affecting the movement of traffic in this State, as will enable it to come to a correct conclusion as to whether or not the carriers should be permitted to make this advance in freight rates. Nor has it been shown to us, indeed, that there may not be even such differences in the conditions in this State as would differentiate them from conditions in other States in the wide territory affected by official classification, bounded by Canada on the north, by the Mississippi River on the west, the Atlantic Ocean on the east and the Ohio and Potomac rivers on the south. In this territory one-fourth of the railroad mileage of the United States is contained, and approximately 50 per cent. of the total operating income of the carriers is made. When the extent of the region affected, and the tremendous amount of business that is done, are considered, it is probable that the varying conditions of a territory so large, of a business so great and comprehensive, might require the application of different rates, and, indeed, as a matter of fact, different commodity rates, and such rates control by far the larger amount of traffic, are made in the different States and regions comprised in this area, which includes agricultural and mechanical and commercial products and many concerns of many different degrees of conduct, of efficiency, and of success.

If the action of the carriers in withdrawing the cancellation supplement or in demanding that, as a matter of right, they could file an additional supplement cancelling the former supplement is based upon the legal proposition that the State Commission of Indiana has no right to use or to make a rate that may affect interstate rates, then we have to say in the outset, that we do not feel bound by the judgment of the court in the Minnesota case. We believe that this case will not be affirmed by the Supreme Court of the United States, and we shall follow the opinion of the United States Circuit Court for the Eastern District of Kentucky in the case of the Louisville and Nashville Railroad Co. vs. Interstate Commission, heard by Judges Warrington, Sanford and Denison, in which the opinion was rendered on the ninth day of January, 1911, and in which the

court held that Congress did not intend by the Interstate Commerce Acts to prescribe that interstate rates should hereafter operate not merely as interstate rates, but as intrastate rates. "To say," said the court, "that Congress so meant, is to ascribe to that body the purpose to take over to itself the whole rate making power, both Federal and State" (186 Federal Report on page 176). Since we have jurisdiction, and have assumed it, we do not feel at liberty to release our control of this important question directly affecting so many interests in this State.

In this investigation the burden of proof is on the carriers. Failing, as they have done to afford any light to the Commission to guide it, indeed, to make any proof whatever, we would be justified in following the well-known rule, that established rates which have been long in existence shall not be disturbed. We might stop here; but since there seems to be concerted and persistent effort to make advances in rates, we shall state frankly our impression with reference to these advances. Is it not worthy of consideration, too, that this constant pressure upwards of rates all along the line, and as to every charge, great or small, that might be affected, may have just as damaging an effect on business conditions as what the companies complain of in restrictive legislation, and in reductions of rates made by regulative bodies? And shall not the public, the shipper, and the consumer, have his day in Commission, said by Judge Lane of the Interstate Commerce Commission to be their "one and only resort against injustice," to complain that the entire burden of rates is unscientific in itself and is to be made heavier instead of lighter, even when the volume of business of railways is continually greater?

This view of the transportation question, it seems to us, has not been given due weight. The number of carriers has not increased but has decreased by means of combinations and consolidations. A half dozen great railway systems control all of the traffic of this vast country, the wealthiest in the world, and this transportation has heretofore been notoriously done, not to enhance the prosperity of the country, but to make colossal fortunes for a few men, and this small coterie of men control all of the transportation of the public, all the highways of the country, and have become so wealthy out of their direct and incidental profits that no association of men without their consent can secure enough money to build any competing trunk lines of railroad in this country. Hence all traffic thus monopolized is done by them and the economic rule is of direct application, namely: "Expenses increase as traffic increases, but by no means in the same proportion." "Therefore, the heavier the traffic the lower profits remaining equal, need be the rate." "As the traffic increases, the average rate goes down, and as the rate goes down the traffic increases." (Ackworth's *Elements of Railway Economics*.) So it is fair and right to conclude as we did in the express cases: "The carrier is entitled, indeed, to fair returns, but when these have been accounted for, as population and traffic increases, and as the cost per unit of traffic necessarily decreases, the public is justly entitled to some portion of these earnings in reduced rates." (Third Annual Report Indiana Railroad Commission, page 136.) If, however, general increases are to be constantly made and allowed, this universal rule of business and prosperity will be reversed.

But can it be, as was suggested at this hearing, that some expert, some person who has the fear of reduced dividends on watered stock in his mind, has devised the cunning and unscrupulous plan to raise rates or attempt to raise them, that the consumers who pay them, instead of insisting on fair reductions, may have continually to fight unfair and unwise increases?

In a general way, we may state briefly some facts which justify the above observations. The freight tonnage of 1907 was larger than ever before. From 1896 to 1909 railroad tonnage in this country increased more than 100 per cent., and so also, the net earnings and the amount paid in dividends was larger in the year 1910 than ever before, and we learn from Poor's Manual that the assets of the railways of the United States increased for 1910 more than 7 per cent.; gross earnings 11 per cent., and net earnings 7.85 per cent. It is true that we have unofficial information going to show that for the year 1911 there will be a slight decrease of operating revenues, probably not amounting to more than one-tenth of 1 per cent. over 1910, and that expenses have increased much more rapidly than usual during this period, but these exceptional facts do not derogate from the general principle or general tendency mentioned above. The country is growing faster and faster in population and business. The carriers provide and have provided heavier rails and engines, and larger cars to do this increased business, and efficiency will have its results. There may, indeed, be a permanent advance in wages and some advance in the price of material, but all of this will be taken care of by the cumulative increase of business, and much more than the necessary amount to pay fair dividends on proper valuations will still remain. Part of this sum at least is the prosperity fund of the country, arising from an excess in the transportation tax, to be accounted for in reduced rates by public agents and servants, who are permitted by the Government to collect this toll on these public highways. And so the State is charged with the duty of restraining such misappropriation, for which a stronger term might well be used, as the Indiana law enacts, "to correct abuses and to prevent extortion."

Additional facts strikingly illustrate the unjust accumulation of earnings by failing to reduce rates. The Pennsylvania Company has admitted "that since 1887 it has put into the Pennsylvania Lines east of Pittsburgh, in addition to paying its stockholders splendid dividends, in improvements and betterments, \$262,000,000 taken from earnings."

"The Lake Shore and Michigan Southern, as early as 1901, owned a majority of the capital stock of its competitor, the New York, Chicago and St. Louis R. R. Co., a majority of the capital stock of its connection, the Pittsburgh and Lake Erie R. R. Co., almost one-half of the capital stock of the Lake Erie and Western R. R. Co., and \$11,224,000 of the capital stock of the C., C., C. & St. L., besides smaller holdings in other companies. These stocks had been acquired in addition to dividends of not less than 6 per cent. for many years out of net earnings. During the year 1902 it purchased, apparently out of surplus, \$4,728,200 of the capital stock of the Indiana, Illinois and Iowa R. R. Co., the entire capital being \$5,000,000."

"This company, after paying 7 per cent. dividend to its stockholders, has a surplus each year sufficient to buy the control of a very considerable railroad." (9 Interstate Commerce Report, 382, 417.)

In attempting to ascertain without the assistance of the companies, such facts as will aid in this investigation, some interesting and instructive figures are presented, which will indicate with great certainty the cost of moving in this State small packages of freight. We have extracted from the annual reports of the railroads to this Commission for 1910, the following statement:

Railroads.	Average Receipt per Ton per Mile.	Ratio of Oper- ating Expense to Operating Revenue.
B. & O.00621%	66.91%
Central Indiana00891%	102.66%
C. & E. I.00464%	67.77%
C., I. & L.00744%	65.58%
C. & E.00432%	79.27%
C., C., C. & St. L.00539%	72.39%
C., I. & S.00427%	66.78%
C., H. & D.00718%	79.83%
C., C. & L.00573%	93.50%
E. & T. H. and E. & J.00961%	61.63%
G. T. W.00569%	78.39%
G. R. & I.00624%	77.46%
I. C.01186%	69.81%
I. S.00641%	74.77%
L. & N.00776%	60.43%
L. E. & W.00658%	73.44%
L. S. & M. S.00515%	62.83%
M. C.00699%	72.67%
N. Y. C. & St. L.00505%	64.91%
P., C., C. & St. L.00612%	70.94%
Pennsylvania00563%	69.31%
P. & E.00572%	69.45%
P. M.00654%	51.94%
Southern00719%	85.46%
S. I.00757%	65.54%
.....	.00499%	63.24%
.....	.00624%	74.34%
	<hr/>	<hr/>
	.00649%	71.89%

It is easily ascertained from this statement that the highest expense per ton per mile for moving freight in Indiana is incurred by the Central Indiana R. R. Co., and amounts to .009147. The lowest expense per ton per mile is paid by the C., I. & S. R. R. Co., and amounts to .00427. The average receipts per ton per mile for the State are .00649. The average rate of operating expenses per ton per mile is 71.89 per cent. The highest cost per ton per mile being, as said above, .009146, in order to illustrate plainly what we have found, we will assume that the cost per ton per

mile for moving freight in this State, instead of being the average, .00649, or instead of being the highest, which is .009146, is exactly .01, or 1 cent per ton per mile. In the litigation in the Vandalia case at the hearing before the Master, W. C. Downing, Superintendent of the Vandalia R. R., testified that if all of the traffic of his railroad had been handled on the basis of local freight, meaning freight handled "over the platform," the expense would have been increased 14.6 per cent.; adding this increase, 14.6, to the assumed expense, as stated above, of 1 cent per ton per mile, we would have a cost per ton per mile of .01146, or for 100 miles \$1.146, or dividing this amount by 20, would give us the expense of hauling a hundred pounds, instead of 2,000 pounds, 100 miles, namely, .0573. Now if we add the terminal charges, which we found in this litigation to be not more than 3.5 cents for moving 100 pounds of freight "over the platforms" and placing the same in the car, and placing the car in the train in the assembling yards ready to be pulled, and 3.5 cents terminal charges at the points where the merchandise was delivered, then we have the total cost of this service, including receiving, handling, hauling to yards and delivery, of .07 plus the cost of transportation, as found above of .0573, or a total of .1273. Now then, this amount, .1273 subtracted from .25, the minimum charge, shows a profit of 100 per cent.

But if it costs .1273 to haul 100 pounds 100 miles, what would it cost to carry 50 pounds 50 miles, 25 pounds 25 miles, or 10 pounds 10 miles? What is the average weight and the average haul of these minimum charge shipments? We have demonstrated a profit of 100 per cent. on a haul of a hundred pounds 100 miles, how much greater percentum of profit accrues to the carriers on the general or average movement of package freight at the minimum charge? We can not tell, although it must be the fact that this average profit is far greater than the profit on the 100 pound 100 mile shipment.

It will also be noted that by the tariffs of the companies where the first-class rate for the distance is applicable, and where such rate exceeds the 25-cent minimum, the charge for such package freight is higher than 25 cents. In such cases, of course, the profit is higher than in the illustration given above. It seems to be absurd to put this first-class rate still higher by increasing the minimum charge, particularly as such advances have been disallowed by the Interstate Commerce Commission.

The matter of the expense of handling and transporting platform freight has been discussed before this Commission so often and the statement submitted by the Vandalia Railroad Company in one of these cases, which was worked out by actual and careful examination of the billing and of expense accounts, was done in such complete detail, that there can hardly be two opinions as to the maximum cost of such business. Both to this Commission and, as we understand, to the Federal Court, in the case of Schnull & Company v. Vandalia R. R. Co., the following statement was made by Mr. Sauer, the statistician of said Vandalia Railroad Company:

ST. LOUIS DIVISION OF THE VANDALIA RAILROAD.

STATEMENT SHOWING ESTIMATED COST PER TON FOR HANDLING PLATFORM
FREIGHT AT INDIANAPOLIS FREIGHT STATION, CALENDAR YEAR 1905.

Total cars in and out of Indianapolis in passenger trains	37,415	
Total cars in and out of Indianapolis in freight trains	145,998	
Per cents,: passenger, 20.4; freight, 79.6.		
Estimate of cars per day in and out of freight house.....	42	
(Inbound, 13; outbound, 24; east bound, 5.)		
Per year	12,852	
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Per cent. of freight house cars of total cars.....	8.8	
Engines and crews working in yard, 6 day, 4 night, total.....	10	
Hours per day by all engines, work.....	104	
Average hours per day per engine.....	10.4	
Hours worked per day by freight house engine	10	
Required for freight house switching, $\frac{3}{4}$ eng. per day, hours.....	7.5	
Per cent. of engine hours required for freight house switching of total	6.2	
Miles of track in Indianapolis Terminal Division—		
First main	2.8	
Second main	2.24	
Siding	16.4	
Dividing cost for maintenance of main track on car basis and charging cost of maintenance of sidings to freight the per cent. of passenger cost was found to be 5.1; freight, 94.9.		
Total tons of freight handled over platform during the year 1905	58,866	
Average tons per car, 4.6.		
Expense bills issued	95,131	
Way bills issued	68,400	
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Cost per Ton.	Total Cost.	Cost per Ton.
Office force	\$16,709 90	\$0.28.4
Platform force	13,850 45	.23.5
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Total	\$30,560 35	\$0.51.9

Cost Per Ton for Additional Expenses—

Account.	Total Charge.	Basis of Division.	Frt. House Proportions.
M. of W. & S. except I. P. & S..	\$19,565 06	8.8% of 94.9%	\$1,633 91
M. of E. Loco. repairs.....	16,932 10	6.2% of 79.6%	846 60
Depreciation	5,082 01	6.2% of 79.6%	254 10
C. T. Superintendence	2,692 39	8.8% of 79.6%	189 46
Station Supplies	587 91	100%	587 91
Yard Supervision Rec. Clks.....	1,302 10	8.8%	114 58
Yard Supervision Other	12,213 28	8.8% of 79.6%	859 76
Yardmen	24,421 37	8.8% of 79.6%	1,719 25
Yard Eng. and Firemen	13,826 31	8.8% of 79.6%	973 36
Yard Loco. Fuel	18,712 77	8.8% of 79.6%	1,317 36
Engine-house Men	3,326 52	8.8% of 79.6%	232 85

Account.	Total Charge.	Basis of Division.	Fr't. House Proportions.
Fuel Sta. Operation	\$2,177 72	8.8% of 79.6%	\$152 44
Loco. Water Supply.....	980 43	8.8% of 79.6%	68 63
Loco. Stores	577 13	8.8% of 79.6%	40 40
Loco. Other Supplies	622 21	8.8% of 79.6%	43 55
Policemen	22,770 67	8.8% of 79.6%	193 24
Interest on Engines	4,155 64	6.2% of 79.6%	207 78
Taxes, \$7,000.00-\$212.13	149 10	100%	149 10

Total\$9,584 28

Per Ton 16.2 cts. Add. 51.9 cts. Total cost per ton 68.1 cts.

Counting repairs, depreciation and interest at 6.2% of 94.9% and eleven items as 8.8% of 94.9% the total additional expenses for freight house proportion will equal \$10,899.22, which is equivalent to an average cost of 18.5 cents per ton, to which add 51.9 cents, equals total cost, 70.4 cents.

If reference is made to the expense of office force in Mr. Sauer's statement, it will be noted that the same is in dispute, and it would appear from evidence submitted to us that only 20 per cent. of the expense of the office force should be charged against platform freight, instead of 100 per cent. shown in the statement, and if only 20 per cent. is properly charged against platform freight, it would reduce the cost of hauling such platform freight, to 47.7 cents per ton, making the terminal charge about 2.5 cents per cwt. instead of 3.5 per cwt. Our calculations, however, are based on the cost shown by the statement itself of 3.5 cents per cwt. as the average terminal charge.

It might be claimed that the figures referred to are taken from the business of a period too far back to be used in this investigation. We are able, however, to bring this examination down to a recent period, namely, the year 1910. During that year the cases of Indianapolis Freight Bureau vs. C., C., C. & St. L. Ry. and C., H. & D. R. R., and the case of Schnull & Co. vs. the C., C., C. & St. L. Railroad Co. were heard by this Commission, and Judge John G. Williams, a railroad man of experience, ability and learning, was introduced as a witness. He had been general manager of the Vandalia Railroad Co., and is now its chief counsel, and had given much of his time and attention to matters of cost and revenue connected with the business of that company. He states so clearly the cost of this business, and how he arrived at it, that we quote from his testimony as follows:

"In order to arrive at the basis of any idea of how much you ought to be paid you have got to go at it in the same way as a merchant does, how much does it cost me to do that, so I can know what I should get for it?"

"With regard to the terminal cost, you can take the amount paid your employes and the amount of work you do and you can distribute that so as to find what work is done for this very work. You can very near determine and distribute it on a sensible approximation as to what it costs you. I have done that with reference to

our Indianapolis terminals and in part at Terre Haute and in part at St. Louis, the balance has been done under my direction. In making the distribution of expense here more correct, I have taken the value of the property and the improvements, not the real estate, but just by taking the value of the improvements from the taxes we paid on that property. There is also insurance, which I have ascertained. In the main the figures run about the same through Indianapolis, Terre Haute and St. Louis, and I find without going into detail (I could give you the figures) it is a very low estimate and a very safe one as against the public, to say that it costs the Vandalia and any other railroad similarly situated, at least three and one-half cents per hundred pounds to load that freight and have it ready for the haul. The same is true of Terre Haute and East St. Louis; the figures are relatively the same.

"After you have loaded it and started it and it reaches its journey you have to unload it and take care of it until somebody comes to get it, and you have to have a place for that. On the line of the Vandalia there are but two towns of any commercial importance whatever. There are a number of stations, starting with the little place called Ben Davis, Bridgeport, Plainfield, Gibson, Pecksburg, Amo, Almeda, and then you come to Greencastle. There is not a point between here and Greencastle that would handle any amount of this class rate stuff in a year, still we have to have agents there and room for them, and you can't get an agent for less than \$40.00, and I don't think there is one that gets less than \$50.00, and all the class freight he has to handle compared with his salary equals about 3+ cents per hundred pounds. Of course, that agent takes care of ticket sales, but he doesn't take care of the telegraph. Distributing that work, I find that it was extremely fair to the public to charge one-half of that to freight and one-half to passenger. At some stations more should probably be charged to passenger, but take all the stations, the time and work and expense of the station I figure that 3½ cents was an extremely fair estimate in favor of the public, and I arrived at the conclusion that 7 cents was nothing more than the company should get and nothing more than they had a right to get, covering loading, receiving and unloading. When you come to think of it, it doesn't strike my mind, gentlemen, that 7 cents is a very large amount for taking 100 pounds and doing all of that with it. To handle it from here to Greencastle that terminal expense is the same as were you to haul it 500 miles, no matter if you haul it 5 or 500 miles it is there and you have to make allowance for it, and I have come to the conclusion that it is fair to allow a uniform price for this service. Does it strike anyone that 7 cents is an unreasonable sum for doing all of the work I have described? It would not strike anyone as being an exorbitant charge. Then there is the liability, the cost of your insurance of the safe delivery of that property to its destination."

Judge Williams' testimony is doubtless based to a large extent upon the figures found by Mr. Sauer. As we have shown in the statement attached, these figures so far as the item of office force is concerned, will be

subject to some correction. However, placing the terminal cost at exactly the amount testified by so competent and reliable a witness as Judge Williams, we have, as said above, 7 cents for the entire terminal charge with nothing to add thereto except the actual cost of transportation on the rails from one terminal to the other. Now, as to this item of expense, Judge Williams is not as definite as he was in reference to the terminal charge. He stated generally that it ought to be worth 1 cent, the lowest coin we have, to carry 100 pounds one mile, or 5 cents to carry 100 pounds 5 miles, but it seems that he does not consider in making this statement that much freight moves as low as $\frac{1}{2}$ cent a ton a mile, and that the revenue per ton per mile on the Vandalia R. R. in 1910 was .00624, and that the cost of handling a ton each mile on the Vandalia in 1910 was .004639 or less than $\frac{1}{2}$ cent per ton per mile. Now then, on these figures the average cost of hauling 100 pounds 1 mile on the Vandalia would be less than $\frac{1}{4}$ of a mill, or about $\frac{1}{40}$ of a cent. Judge Williams also said, that if it was worth 1 cent to haul 100 pounds a mile, it was worth 5 cents to haul it 5 miles, but the Commission now having ascertained, using the merchants' rule suggested by Judge Williams, that it cost only $\frac{1}{40}$ of a cent to move 100 pounds a mile, why may not we calculate that it would cost five times $\frac{1}{40}$ of a cent to move a hundred-pound package 5 miles, or exactly $\frac{1}{8}$ of a cent. In other words, while Judge Williams estimates that the whole charge, terminal and transportation, for a single 100 pound package for 5 miles should be 12 cents, it seems to follow from the actual figures and facts shown above that the exact expense of carrying this 100 pound package 5 miles is $7\frac{1}{8}$ cents. If these figures are correct, and they seem to us to be correct, there is a profit to the carriers in the single package business of 100 pounds 5 miles of 350 per cent. How then can it be reasonable to allow them to increase this profit 40 per cent. by increasing the minimum charge 40 per cent.?

As to the amount of revenue to be derived by the companies from this increase, we know little that is definite. It has, indeed, been suggested to us that the effect might be to decrease the volume of single package freight and to increase the business of the express companies. Based on general opinion in this country pressure is increasing to have the railroads take over the express business and its revenues and profits. The main part of express is railroad transportation. Express is done in Great Britain, and in some instances even in this country, by the railroad companies, who, as a matter of fact, perform the entire transportation service and allow more than half the receipts to be diverted to unnecessary channels.

However this may be, there is to be considered now as never before, not only the railroad, but the shipper and consumer. As to these we have some proof whose positive tendency is to show a remarkable and disastrous effect on them. At this hearing L. W. Cooper of the Crowder-Cooper Shoe Company, Indianapolis, testified that his firm in two months time made 586 shipments of single packages of freight, and of these, 493 were less than 100 pounds weight; by the ten-cent increase, therefore, this single firm would pay an increase of about \$300.00 annually. Mr. Cooper, who has been in business 30 years, states frankly that most of this additional expense would be paid by the consumer. His evidence as to the large number of firms doing business on steam and interurban lines

out of Indianapolis tended to show that a large amount would be exacted by this increase.

Mr. E. C. Merritt of the Indianapolis Abattoir Company, testified that they had numerous customers who would order six times in one week, that averaging six months of their business of shipments less than 100 pounds out of Indianapolis, showed that it included 450 such shipments each month, and that each one of these shipments would be affected 10 cents. Mr. Merritt also complained that if the minimum were increased in this State under Official Classification, while west there is Illinois classification and south there is Southern classification which have not increased the minimum charge, their business would be seriously interfered with.

The Kiefer Drug Co. show that their firm will average about 900 minimum rate shipments each month, estimate made from a careful checking for thirty days.

Mr. J. V. Zartman, Secretary of the Indiana Manufacturers' and Shippers' Association, stated that in the northern part of the State jobbing interests, and especially grocery companies, bread and baking companies, and confectioneries, were vitally interested in this increase in freight. He mentioned one baking company who make 27 shipments each day on the minimum rate.

Mr. W. M. Young, representing the Nordyke & Marmon Co., testified that they received a very large number of small shipments coming from other points that would be governed by this increase; that he had attended classification committee meetings at Chicago and Detroit for the last five years, and that he believes there has never been an advance so distasteful to shippers as this except the general horizontal rate advance.

M. J. Keavy, Commissioner Indianapolis Freight Bureau, called attention to the discrimination that would result to Indiana shippers by reason of the difference in Illinois Classification and Official Classification if this increase were permitted. He mentioned Danville, Ill., as an illustration, saying: "It is 85 miles from Indianapolis, 123 miles from Chicago; our minimum, which our shippers would have to pay is raised 10 cents, the Illinois competitor Chicago, Peoria, and also St. Louis, would continue the 25 cent minimum." Mr. Keavy, examined as a rate expert by the Commission, was of the opinion that this raise would have a tremendous effect, and that it would furnish grounds for the most positive objections and protests from our distributing houses here and other points in Indiana, and would be highly prejudicial to their business.

Our investigation shows further that the following Indianapolis firms and their customers will be affected by the proposed increase:

Firms.	Per Month.
Indianapolis Book and Stationery Co.....	40
Acme, Evans Company, per year.....	300
Mooney-Mueller Drug Co.....	847
Hamilton-Harris & Co.	500 to 600
Kipp Bros. & Co.	150
E. C. Atkins & Co.	115
The I. F. Darnody Co.	485
Crane Co.	682

It seems clear to us from what we have been able to gather together on this subject that this advance ought not to be allowed.

First. There is nothing to indicate to us that 25 cents is not fully remunerative. It looks like another way of bringing about a general increase in rates, although the general advance heretofore made was disallowed by the Interstate Commerce Commission for reasons that could not be controverted.

Second. A great hardship would be incurred by the small merchant or receiver of freight, who, on account of lack of capital or other reasons, is unable to carry a large stock of goods, and orders in small quantities as required. This is now his only means of transporting such things as he may need at a fair price, the express companies' rates being out of the question.

Third. The minimum charge is really the charge for 100 pounds at first-class rate, but in no case less than 25 cents. This advance will affect a great many shipments other than those on which the minimum charge is 25 cents. For instance, take a shipment where the first-class rate is 30 cents, which would be the minimum charge; advance the minimum and there would be an advance in the rate of 5 cents.

Fourth. No reason is given for this advance.

Fifth. It appears to be unscientific in itself.

For the reasons just above given, and for those stated in the opinion, the Commission has decided to disallow and cancel the proposed increase, and an order to this effect will be entered accordingly.

In the above case, the Commission having heretofore suspended the effective date of said supplement so far as rules 15-b and 15-c were concerned, and having given due and reasonable notice to all of the carriers doing intrastate business in this State, and having given a full hearing of the matters involved herein, and having carefully investigated the same, upon consideration:

It Is Ordered, That said supplement so far as rules 15-b and 15-c are concerned is hereby canceled and annulled.

It Is Further Ordered, That rules 15-b and 15-c, Official Classification No. 37, I. R. C. No. OC-37, are hereby re-established as the proper classification of minimum charges on single packages or small lots of freight in this State where the movement and entire transportation is from one point in this State to another point in this State. This order to take effect on the 26th day of August, 1911, and to remain in force for five years from the date thereof.

It Is Further Ordered, That the Secretary transmit a copy of this order to all of the carriers who are made parties to this proceeding.

No. 477. Southern Railway Company. Petition to Charge Less for Longer than Shorter Haul.

This was a petition asking permission to charge 6 cents per 100 pounds on logs in earload lots from Corydon to Tell City, notwithstanding a higher rate is maintained to and from intermediate points. Publication was made in the Evansville Courier, Evans-

ville Journal-News and Corydon Democrat, and no objection having been filed, final order was made for the lower rate for the long haul.

No. 478. Kokomo, Marion and Western Traction Company vs. C., T. H. & S. E. Ry. Co. et al.

This case involved manufacturers' rates on coal, and the following opinion was rendered and order made:

McCLURE, *Commissioner*:

The petitioner alleges that it is a corporation engaged in operating an electric street and interurban railway, and an electric lighting plant in the city of Kokomo, Howard County, this State, and is a large consumer of coal, which is necessary to be transported to its place of business over the lines of respondent companies; that each of the respondent carriers, viz., the C., T. H. & S. E., Vandalia, C., C. & St. L., Central Indiana, I. S., E. & T. H., L. E. & W. and P., C., C. & St. L., has given and is charging for manufacturing purposes in said city of Kokomo, for the transportation of coal, a rate of sixty-five cents per ton from the Indiana mines to said city, and that said carriers are charging the petitioner for such transportation the sum of seventy-five cents per ton, thereby discriminating against this petitioner. Prayer that said transportation charges be investigated and that such order be made as shall be deemed proper under the Acts of 1907 and Acts of 1911, p. 460.

It was developed at the hearing of this case that the petitioner operates an interurban line of railroad between Kokomo and Marion and the street railway in Kokomo, also an electric light plant in said city. The petitioner also produces and sells electric current. Industrial concerns located in the city of Kokomo are customers of the petitioner in that they use electric current produced by the petitioner as motive power in the operation of manufacturing plants.

The amount of coal consumed by the petitioner at its power-house located at Kokomo for the year 1909 was 16,647 tons, or an average of 46 tons per day; for the year 1910 it was 19,322 tons, or an average of 53 $\frac{2}{3}$ tons per day. The total output of electrical current for the year 1909 was 5,090,531 K. W. H. The amount of current supplied to manufacturing plants for the year 1909 was 773,797 K. W. H., or 14.4% of the total output of current. For the year 1910 the current measured in watts was 5,894,458 K. W. H., and of this 27.6% was furnished to manufacturing plants. It was also shown that thirty-four factories were furnished electric current by the petitioner and the estimated *in* and *outbound* tonnage to and from them carried by the railroads was 256,354 tons for the year 1910. The manufacturing plants producing an outbound freight tonnage have the benefit of the sixty-five cent., or manufacturer's rate, while the petitioner pays the seventy-five cent or steaming rate. Electric current can be measured by means of meters as accurately as steam or gas, and its cost as accurately computed.

In 1905, when natural gas ceased to be produced in sufficient quantities to supply manufacturing interests in what is known as the Gas Belt

territory of the State, a serious question arose as to the continued maintenance of such business. The carriers were desirous that manufacturing continue in that territory. In consequence thereof a lower rate was established on coal used in manufacturing plants producing an outbound tonnage than for other purposes. Three rates were established: for manufacturing purposes a 50-cent, and later a 60-cent rate, and now a 65-cent rate is in effect; for steaming purposes, a 75-cent rate; and for domestic purposes an 85-cent rate. Steaming coal was such as was used in electric light, water-works, street car and flouring-mill plants. The latter was not given the lowest rate for the reason that they had existed in this territory prior to the discovery and use of natural gas, and would not remove.

The Commission investigated the apparent discrimination in favor of the concerns enjoying the low rate. The question was thoroughly considered and exhaustive opinions were rendered in which the Commission upheld the action of the carriers in making the low rate on the ground that the "milling in transit" principle applied, and also upon the broad ground of public policy. It was found by the Commission that the 60-cent rate was unremunerative.

In 1907 the Legislature passed what is known as the Shipper's Bill, Acts 1907, p. 434. Among other things, Section 13 of this act provides as follows:

"And it shall be lawful for such carriers, after obtaining the permission of the Railroad Commission of Indiana so to do, in the making of such rates, to provide for the transportation of coal to be used for manufacturing purposes and steaming purposes, at a reasonably less rate than the rates which such carriers may provide for the transportation of coal to be used solely for domestic consumption. Upon application therefor, as provided in this act and the rules of the Railroad Commission of Indiana, promulgated in accordance with this act; every such carrier having such mines on its line shall furnish cars for transportation of coal to any such point in this State on or off its line in accordance with such rates so published, and every such originating and connecting carrier shall promptly receive and transport such coal as provided in this act."

Since the enactment in question the carriers have made different rates on coal to the same points dependent entirely upon its use at destination and the preferential tariffs filed by the companies governing the rates upon this commodity have received the sanction of the Commission.

The purpose of this provision of the statute was to give to carriers the right to encourage the development of manufacturing on their lines as well as to induce a continuation of such business already established, particularly where the failure of a cheaper fuel, like natural gas, had rendered further operation hazardous.

The petitioner insists that it is entitled to the same rate as the manufacturers receive, because it is engaged in manufacturing, that of producing an electric current. The traction company that produces electrical current to propel its cars is not engaged in manufacturing a product for transportation, as is contemplated by the statute authorizing the preferential rate. The product thus generated is used to operate rail-

roads that compete with the carriers that transport the coal to the power stations, but when the electricity generated is used in propelling machinery used in manufacturing an outbound product, an entirely different condition arises, one that increases the business of the steam carrier and makes more certain its revenue. It is therefore clear from the history of these rates in this State and the statute authorizing the same that the petitioner is not entitled to the manufacturer's rate on all the coal used by it in generating electricity. The petitioner by means of dynamos propelled by steam generates electricity which is capable of being transmitted from place to place, and when properly applied to suitable machinery becomes a convenient and efficient motive power and is successfully used in the operation of manufacturing plants. The coal that is consumed in the generation of electrical energy or power used in the operation of a manufacturing plant which produces an outbound tonnage should be transported at the same cost as if the coal was carried directly to the factory and there used under its boilers to generate steam for power purposes. If the company operating a manufacturing plant producing a product to be transported by railroad were to equip itself with machinery and appliances to produce electricity sufficient to operate its factory it would certainly be entitled to the manufacturer's rate. As between the carrier and shipper we cannot distinguish between the concern that generates its own electricity and the company that generates the same kind of power when used for the same purpose.

In this case there is a degree of complexity in that more than two-thirds of the coal used by the petitioner is consumed in the production of electricity that is used in propelling its cars and developing power that is not used to operate manufacturing machinery. However, it is possible to measure the total current produced and the amount consumed in each enterprise supplied. As we have seen, in 1909, 14.4 per cent. of the petitioner's electrical output was used as power in manufacturing. In 1910, 27.6 per cent. of it was so used. The petitioner is entitled to the manufacturer's rate on that per cent. of all the coal used by it in producing electrical current that the per cent. of its electrical current used in operating manufacturing plants producing an outbound tonnage bears to its entire electrical output.

This will require the petitioner to keep an accurate account of each day's production of electrical current and the amount furnished each consumer, including the amount used in its own operations; and the companies carrying coal shall be entitled to a verified statement of the daily production and use of the current at the end of each three months, and the petitioner shall be entitled to a rebate upon that portion of the coal transported from the mines in Indiana to its power station at Kokomo, Indiana, that it consumed in producing electrical power used to operate manufacturing plants, and an order will be entered to that effect.

ORDER.

The Commission, having heard the evidence in the above entitled cause and being fully advised—

It Is Therefore Ordered, That on and after the first day of January, 1912, the petitioner shall have the manufacturer's rate on that portion of its coal used in generating electrical current that is used to operate

manufacturing plants having an outbound tonnage, and in order to ascertain the amount of coal used by petitioner to generate electric current for manufacturing purposes, the petitioner shall by proper electric meters measure its total production of current daily, and likewise the current used each day in operating manufacturing plants, and that per cent. of the total amount of coal consumed in generating electricity that the amount of electric current used for manufacturing purposes bears to the total amount generated shall be the amount of coal the petitioner shall be entitled to have carried at the manufacturers' rate.

It Is Further Ordered, That the petitioner shall pay the rate applying on steaming coal as the same is delivered or in accordance with usage, and at the end of each three months the petitioner shall submit to the carrier a verified statement showing the amount of electric current produced and the amount furnished manufacturing plants and the amount in tons of coal delivered by the carrier and consumed by it in producing such current. The carriers shall be allowed to inspect and read the meters used by the petitioner in measuring the electric current produced at its power plant in Kokomo, Indiana, and the respondents carrying such coal shall rebate to the petitioner such sums as will reduce the rate on the coal used to generate the electric current for manufacturing to the manufacturer's rate

It Is Further Ordered, That this order shall be and remain in effect for five years, and shall apply only to the movements of coal originating and carried wholly within the State of Indiana.

No. 479. James M. Coffey vs. Southern Railway Company.

This case involved the freight rates on cinders, and on June 29, 1911, the following order was made:

ORDER.

The above case coming on to be heard and it being shown to the Commission that the respondent has agreed to apply the Central Freight Association scale in the transportation of cinders on its line and this rate being satisfactory to the petitioner and to the Commission, upon consideration—

It Is Ordered, That a tariff covering shipments of cinders as above stated may be filed with the clerk of the Commission on this day and that same shall become effective upon filing.

It Is Further Ordered, That upon filing of said tariff the above case shall be dismissed.

No. 480. Application of the Western Gas Construction Co. to Use Platform, etc., Without Maintaining Statutory Clearances.

In this case the following report and order was made:

McCLURE, *Commissioner*:

The Western Gas Construction Company maintains its plant in the city of Ft. Wayne, and the company files an application to be permitted

to maintain its platform along its switch-track, also an unloading beam at its boiler shop and truss at new iron storehouse at the present clearance, which is less than twenty-one feet. Subsequently to the filing of the application Chief Inspector Scott was directed to visit the company's plant, which he did on May 31st, and went over and made inspection of the same, particularly the points that do not have the clearance provided by the statute. It is shown that the platform is the same height as the floor of a flat-car and comes close to the car on both sides, the platform being upon either side of the track; the clearance being at nearly all points about five inches, makes the track in effect a depressed track. The platform has been in existence for a number of years, and the switching from this plant is done during the day, and it is not actually necessary for switchmen to go between the cars when working at this point. The company advises that when they repair the platform it will be moved back in order to provide the seven-foot clearance.

The overhead obstructions are less than twenty-one feet, and might be operated by putting up a warning device in the way of danglers suspended over the track to warn trainmen of the approach to a low overhead.

Nevertheless, these obstructions are inhibited by the statute, and where injury arises to trainmen by reason of the maintenance of such obstructions, the injured party is not held accountable for contributory negligence resulting in his injury, nor is he charged with the assumption of the risk in performing his duties at the point of such obstruction. The granting of the petition would relieve the petitioner from responsibility imposed by the statute. This, the Commission does not care to do, and if he does not afford the proper statutory clearance, and an injury results by reason of his failure to do so, he must alone assume the responsibility.

The application to maintain the obstructions referred to in the petition herein is denied for the reasons stated.

ORDER.

The Commission having inspected the application of the petitioner herein to be relieved of the duty of making certain clearances in and about his premises which are specifically referred to in the petition, and having referred the matter to its chief inspector, and having had his report therein, and being fully advised in the premises, denies the petition and dismisses the same.

No. 481. W. Turpin et al. vs. C., H. & D. Ry. and C., I. & L. Ry. Co's.

The petition alleged that the respondent companies did not maintain an adequate station at Roachdale. It developed upon investigation that the station building at Roachdale serving the two companies is located in the southeast angle of the crossing of the two lines; that it was a frame building containing an office, a waiting room, two baggage rooms and an LCL freight room; that the

ground upon which it is located is lower than adjacent ground, and the drainage about the building was not good; that the platforms were in bad repair, but that the size of the building was ample to take care of the business done at that point. The station is the property of the C., H. & D. Ry. Co. and the C., I. & L. Ry. Co. is a tenant of the former company in the matter of depot facilities. It was agreed by the C., H. & D. Ry. Co. that the building should be raised eighteen inches; arrangements made whereby LCL freight transferred from one line to another should go through the building, and not on the platform about the building, thus obscuring the view of passengers when coming from or going to trains; that the building should be repaired and put in serviceable condition, and the Commission authorized the company to make the repairs, and the petition was dismissed.

No. 482. City of Jeffersonville vs. B. & O. S. W. R. R. Co. Train Facilities at Jeffersonville.

In this case the following opinion was rendered and order made:

PAYNE, *Commissioner*:

OPINION.

This was a complaint filed by the city of Jeffersonville against the Baltimore and Ohio Southwestern Railroad Company, alleging that insufficient train service was provided out of the city of Jeffersonville. This matter was taken up by the Commission with Mr. Hagerty, superintendent of the B. & O. S-W. R. R. Co., who advised, on June 22, 1911, that he would take the matter up with Mayor James E. Burke of Jeffersonville, and make such arrangement as would satisfy the wants of the town. On June 29th the Commission was advised by James W. Fortune, city attorney of Jeffersonville, that the complaint having been satisfactorily adjusted that the same be dismissed, and an order will be accordingly made.

ORDER.

In the above entitled cause, the respondent having adjusted the complaint to the satisfaction of the petitioner and the petitioner having so advised the Commission—

It Is Therefore Ordered, That the same be and is hereby dismissed.

No. 483. Charles R. Milford et al vs. Wabash Railroad Company.

In this case which involved train service between Covington and Attica, Indiana, on 3d day of July, 1911, the following order was made:

"The above case coming on to be heard and it appearing that respondent railroad company, as suggested by the Commission, will re-

schedule the time of its trains between Attica and Covington, so that No. 34 will leave Covington at about 10:50 a. m., and this schedule being satisfactory to the petitioner and to the traveling public, and it further appearing that said company will hereafter so conduct its business that trains Nos. 34, 35, 36 and 37 between Attica and Covington will run on schedule time, upon consideration—

It Is Ordered, That on making and filing with this Commission of said new schedule, this case may be dismissed.

It Is Further Ordered, That a copy of this order shall be transmitted to petitioner and respondent.

No. 484. Ex Parte Indiana Union Traction Company. Crossing Gates.

The Indiana Union Traction Company filed an application with the Commission for the approval of gates installed at the crossing of its line over the industrial tracks of steam railroads at Day's Crossing (Fort Benjamin Harrison), Ingalls, Yorktown, C., B. & C. crossing south of Bluffton, Paper Mill siding, Alexandria; Soldiers' Home, Marion; West Side Park line, Muncie; Brick Yard siding, Muncie; Indiana Wire Company siding, Muncie; C. & O. siding, Muncie; north of Montpelier, Irondale siding, Anderson-Middletown line. The Commission directed its chief inspector to examine each of these crossings. The chief inspector advised that a four-lens light be installed on each gate so that the light would indicate the gate closed or open for the approaching train on either of the traction lines on siding. The company has not as yet reported the installation of the four-lens lights as required by the Commission, and case is still pending.

No. 485. C., T. H. & S. E. Ry. Co. Block Signals.

Case pending.

No. 486. John W. Ratcliffe et al. vs. Vandalia Railroad Company.
Petition for New Depot at Macksville, Indiana.

In the above matter the Commission, on July 3d, made an order requiring the construction of a new depot at Macksville, and time for the construction of the same was extended, but on October 30, 1911, plans and blue prints were filed; on October 31st they were approved, and respondent given ninety days within which to construct and finish the depot, and case closed.

No. 487. In the Matter of Passenger and Freight Station at Lucerne, Indiana, on Vandalia Railroad.

In this case on June 24, 1911, the following order was made:

The Commission on this day, June 24, 1911, having before it the application of the Vandalia Railroad Company, asking approval of the proposed passenger and freight station at Lucerne, Indiana, together with a blue print, showing the plans and design for the same, upon consideration—

It Is Ordered, That the same is hereby approved.

No. 488. In the Matter of a Petition of the Central Indiana Railway Company to be Relieved From Installing Block Signals.

In this case the following order was made:

In the above matter, said company having complied with Circular No. 75 of the Commission, and the Block Signal Inspector having reported to the Commission that conditions on their line do not require block signaling, upon consideration—

It Is Ordered, That said company is hereby relieved of installing block signals on their line.

It Is Further Ordered, That the Secretary transmit a copy of this order to said railroad company.

No. 489. In the Matter of Petition of the New Jersey, Indiana and Illinois Railroad Company, to be Relieved from Installing Block Signals.

On the first day of July, 1911, the following order was made:

The above case being before the Commission, and said company having complied with our Circular No. 75, and it being shown that there is but one engine and one crew in the regular train service on this line, upon consideration—

It Is Ordered, That the New Jersey, Indiana and Illinois Railroad Company are hereby relieved from installing block signals on their railroad.

It Is Further Ordered, That the Secretary transmit a copy of this order to said railroad company.

No. 490. In the Matter of Block Signals on the Syracuse & Milford Railroad Company.

On the first day of July, 1911, the following order was made in this case:

The above case being before the Commission, and said company in compliance with our Circular No. 75 having made report to the Commis-

sion of conditions affecting block signaling on its road, and the Block Signal Inspector having reported to the Commission that said road does not require block signals, upon consideration—

It Is Ordered, That the Syracuse and Milford Railroad Co. are hereby relieved from installing block signals on its line of railroad.

It Is Further Ordered, That the Secretary transmit a copy of this order to said railroad company.

No. 491. Kentucky and Indiana Terminal Railroad Co. Block Signals.

Case pending.

No. 492. Wabash Railroad Company. Block Signals.

Case pending.

No. 493. Louisville and Nashville Railroad Company. Block Signals.

Case pending.

No. 494. Baltimore and Ohio Terminal Company. Block Signals.

Case pending.

No. 495. In the Matter of Local Merchandise Rates of the Express Companies Doing Business in the State of Indiana

In the above case the Commission having determined to investigate express rates in this State, made, on July 6, 1911, the following order:

WHEREAS, The Railroad Commission of Indiana is of the opinion that the local merchandise rates of the express companies doing business in this State, that is to say, the rates of said express companies on a single line from one point in this State to another point in this State, are excessive and unjust and in violation of the laws of this State; therefore

It Is Now Ordered by the Commission, That an investigation of said rates shall be made by the Commission.

It Is Further Ordered, That all the express companies doing business in the State of Indiana be and are hereby made parties to this proceeding.

It Is Further Ordered, That a hearing shall be held at Room No. 83, State House, on the 2d day of August, 1911, and shall continue until it is disposed of, and that the Secretary of the Commission cause a certified copy of this order to be served on said express companies twenty days before the date set for such hearing.

This order was duly served on the express companies. In order to arrive at a correct conclusion as to express rates, the Commission secured

the services of the Louisville Mutual Audit Company, and E. W. Farnham, the express expert of that company, was sent by the Commission to New York City under an agreement of the American Express Company that it furnish all the clerks necessary to extract from the general billing and business of the express company the local business done in the State of Indiana, the other companies, in the meantime, proceeding to make a similar statement for their companies by experts and clerks employed by them in order to complete the work. The case, which had been set down for hearing on October 10th, was postponed to October 25th, and meanwhile said Louisville Audit Company made full report to the Commission with blue print exhibits showing the results of its work. On October 25th the Commission commenced its hearing, assisted by Korbly and New, attorneys employed by it, and the express companies being represented by the following persons:

American Express Company, and National.—Baker & Daniels, attorneys; T. B. Harrison, Jr., counsel; E. E. Bush, assistant general traffic manager.

Adams Express Company.—Baker & Daniels, attorneys; T. B. Harrison, Jr., counsel; W. W. Glenn, auditor.

Southern Express Company.—Baker & Daniels, attorneys; J. D. Patterson, Jr., counsel.

Wells-Fargo & Company Express.—C. W. Stockton, counsel; Richard Burr, comptroller; Geo. S. Lee, traffic manager.

United States Express Company.—B. P. Kerfoot, counsel; N. T. Jones, superintendent of traffic; John L. Tate, general auditor.

The hearing continued for three days, and at the time of the hearing it was agreed that copies of the record should be forwarded to the attorneys for the express companies, giving them time to file briefs. This was done, and the Commission being fully advised after a full, laborious and expert investigation, made the following order:

In the above case it appears that twenty days' notice of the purpose of the Commission to make this investigation was duly given to the American Express Company, National Express Company, Adams Express Company, United States Express Company, Wells, Fargo & Company Express Company and Southern Express Company, and it further appears that said carriers have become respondents hereto by appearing at the hearing by their counsel and duly authorized representatives and that this matter was fully heard, investigated and understood; thereupon the Commission now finds that the local merchandise rates of said express companies on single express lines from one point in this State to another point in this State are excessive and unjust and in violation of the laws of this State. And the Commission having determined that just, undiscriminative and nonprejudicial rates are as set out hereafter in the schedule attached hereto.

It Is Hereby Ordered, That on and after the 15th day of March, 1912, said express companies shall cease and desist from charging the rates now charged by them so far as they conflict with this order.

It Is Further Ordered, That said respondents shall hereafter charge and collect on and after said 15th day of March, 1912, and for the period

of five years thereafter the rates set out hereinafter in the schedule attached hereto and that meanwhile said carriers shall make, publish and file tariffs in conformity with this order.

It Is Further Ordered, That the schedule of rates referred to above and hereby made part of this order is in words and figures as follows:

MAXIMUM LOCAL MERCHANDISE EXPRESS RATES.

<i>For Distances—</i>	<i>Rates in Cts. per 100 Lbs</i>
30 miles and under.....	40
60 miles and over 30 miles.....	50
90 miles and over 60 miles.....	60
120 miles and over 90 miles.....	75
150 miles and over 120 miles.....	90
180 miles and over 150 miles.....	100
195 miles and over 180 miles.....	110
250 miles and over 195 miles.....	125
310 miles and over 250 miles.....	140
340 miles and over 310 miles.....	150
370 miles and over 340 miles.....	160
400 miles and over 370 miles.....	175

TABLE OF MAXIMUM GRADUATED CHARGES IN CENTS. TO BE USED IN CONNECTION WITH AND AS PART OF ABOVE SCHEDULE OF LOCAL MERCHANDISE EXPRESS RATES.

PACKAGES WEIGH- ING	When Local Merchandise Rate in Cents per One Hundred Pounds is											
	40	50	60	75	90	100	110	125	140	150	160	175
Not over 2 lbs.	25	25	25	25	25	25	25	25	25	25	25	25
Over and Not Over.												
2 3 lbs.	25	25	25	25	25	25	25	25	30	30	35	35
3 5 lbs.	25	25	25	25	25	25	30	30	35	35	40	40
5 7 lbs.	25	25	25	25	25	30	35	40	40	45	50	50
7 10 lbs.	25	25	25	25	30	35	40	40	45	50	50	55
10 15 lbs.	25	25	25	30	30	35	40	45	50	55	60	60
15 20 lbs.	25	25	25	30	35	40	45	50	55	60	65	65
20 25 lbs.	25	25	30	35	40	45	50	55	60	65	70	75
25 30 lbs.	25	25	30	35	45	50	50	60	65	70	75	80
30 35 lbs.	25	30	30	40	45	50	55	65	70	80	85	85
35 40 lbs.	25	30	35	40	50	55	60	70	80	85	90	90
40 45 lbs.	25	30	35	45	50	60	65	75	80	90	95	95
45 50 lbs.	25	30	35	45	55	60	65	75	85	90	95	100
50 55 lbs.	25	30	35	50	60	65	70	80	90	95	100	105
55 60 lbs.	30	35	40	50	65	70	75	85	100	100	105	110
60 65 lbs.	30	40	45	55	70	75	80	90	100	105	110	120
65 70 lbs.	35	40	50	60	70	80	90	95	105	110	120	130
70 75 lbs.	35	40	50	65	75	85	95	100	110	120	130	140
75 80 lbs.	40	45	55	70	80	90	100	110	120	125	135	150
80 90 lbs.	40	50	60	75	90	100	105	120	130	140	150	165
90 100 lbs.	40	50	60	75	90	100	110	125	140	150	160	175

It Is Further Ordered, That the Secretary mail a copy of this order to said respondents.

No. 496. Michigan Central Railroad Company. Block Signals.

Case pending.

No. 497. Baltimore and Ohio Southwestern Railroad Company.
Block Signals.

Case pending.

No. 498. Baltimore and Ohio Railroad Company. Block Signals.

Case pending.

No. 499. Elgin, Joliet and Eastern Railway Company. Block
Signals.

Case pending.

No. 500. Chesapeake and Ohio Railway Company. Block Signals.

Case pending.

No. 501. Chicago and Eastern Illinois Railroad Company. Block
Signals.

Case pending.

No. 502. Evansville and Terre Haute Railroad Company. Block
Signals.

Case pending.

No. 503. Chicago, Indiana and Southern Railroad Company.
Block Signals.

Case pending.

No. 504. The Erie Stone Company vs. Wabash Railroad Company.

In this case the following report was made, and case dismissed:

McCLURE, *Commissioner*:

In this case the petitioner complained that the Wabash Railroad Company had refused to make connections with a switch constructed by petitioner from its stone quarry at Huntington to the line of the Erie Railroad. At the point where the stone company's siding would connect with the main line of the Wabash it will be necessary to cross over the tracks of the Erie Railroad, as the two lines at the point where the switch connection was to be made are parallel. The permission of the Erie Company had to be obtained to cross over its right of way in order that the connection might be made with the Wabash line, the

Wabash Company objecting on account of some difficulty in operation. The matter was taken up with the general superintendent of the Wabash Railroad, and after some correspondence the Commission is advised that a contract has been entered into between the Wabash and Erie railroads whereby the Wabash will hereafter be able to serve the Erie Stone Company by its own engines operating over the siding belonging to the Erie Company. This will obviate the switching charge that the stone company has heretofore been required to pay to the Erie Company when any shipments were billed out over the Wabash Railroad to noncompetitive points, for the reason that the Wabash declined to absorb switching charges to such points; in fact, the arrangement provides the stone company with the facilities of both railroads and is a satisfaction of the demand of the stone company at the hands of the Wabash Railroad.

I recommend that the petition be dismissed and the case closed.

No. 505. J. F. Clemens et al. vs N. Y. C. & St. L. Ry. Co. Depot Facilities at Brems, Indiana.

In the above case the following report and order were made, and on September 29th, superintendent advised the Commission that the order had been complied with, namely:

McCLURE, *Commissioner*:

The petitioners in this case filed with the Commission a petition alleging that the depot facilities of the respondent railroad company at Brems, in Starke County, this State, are not adequate to accommodate the traveling public at that point, that the depot now in use at this station is $11\frac{1}{2} \times 11\frac{1}{2}$ feet, having seating room for about five adult passengers; that there is a monthly passenger traffic from said station of about two hundred adult passengers.

Upon investigation it was found that the station building is $11\frac{1}{2} \times 15$ feet in dimensions. Four feet of this room is partitioned off and used as a ticket and telegraph office by the agent, leaving a waiting room of $11 \times 11\frac{1}{2}$ feet; that the waiting room was supplied with one bench which would seat six adult persons; that there is room for two additional benches that would accommodate nine or ten people which, when supplied, would make a total seating capacity of fifteen; that the waiting room had one or two loose boards in the floor; that the conditions surrounding the station building are sanitary; that the total passenger receipts at this point for the year 1910 were \$639.88, which included eighty-three Chicago tickets amounting to \$122.25; the principal portion of this traffic is from Brems to Knox, a point about four miles east of Brems, this being the point where the people in and about Brems do their merchandise trading. The time of the departure of the east-bound train which is made use of principally by the people at Brems is 4:50 p. m., and the return train leaves Knox at 6:52 p. m. Brems has a very limited population, the exact number not being known, but is composed of seven dwelling houses, two of which belong to the respondent company. The information obtained was through persons who were found about the village. A Mr. Clem, a groceryman, who is engaged in the grocery

business at that point, advised that he had only been at the station once during the summer and was not in a position to testify either for or against any improvement. A farmer living in the vicinity stated that he had a few times been present when the waiting room was not large enough to accommodate the people, and a section employe on the respondent line also advised that in a few instances there had not been room enough to take care of the public. On the day of the investigation, August 3d, there were between twelve and fifteen people in the waiting room for the east-bound train above referred to, and only five of these were passengers. Along the north line of the right of way at Brems the fencing is in bad repair, and the people coming and going from the station make use of the right of way as a highway, which should not be permitted. It is believed that with the construction of a fence along the right of way at this point, the repair of the platform and the floor of the station, that ample facilities will be furnished for the traveling public at that point in the way of a station building. It is therefore recommended that the respondent company erect and maintain through the village of Brems a suitable fence along the north line of its right of way, that the platform at the station be repaired and put in safe condition and the floor of the station building be repaired and additional seats or benches for seating be provided and placed in the vacant space about the walls of the waiting room so that when completed the seating capacity in the waiting room shall be sufficient for not less than fifteen adult persons, and an order will be entered accordingly.

ORDER.

In the above entitled cause the Commission investigated the petition filed herein, and, being fully advised in the premises, recommends and orders as follows:

1st. That the right of way of the respondent company be fenced through the village of Brems.

2d. That the respondent company prepare suitable benches for seats and place the same in the waiting room of the station building at that point so that there will be seating capacity for fifteen adult persons.

3d. That the floor of the station building be repaired and that the platform about the station be repaired by removing broken boards and inserting new ones.

No. 506. Clay County Block Coal Co. vs. Vandalia Railroad Company.

The petitioner alleged that the Vandalia Railroad Company had no fixed rate on coal and coke in carload lots for the Brazil district in connection with the C. & E. I., except local rates which were unfair for joint proportional and through rates. Afterwards the petitioner filed a motion to dismiss the petition herein, which motion was sustained.

No. 507. Clay County Block Coal Co. vs. C. & E. I. R. R. Co.

Petition alleging that the C. & E. I. R. R. Co. had canceled its joint rates with the C., C., C. & St. L. Ry., and at the time of filing the petition herein, July 1, 1911, had no joint rate with the C., C., C. & St. L. Ry. Co. On July 13, 1911, petitioner filed a motion to dismiss the petition herein, which motion the Commission sustained, and case dismissed.

No. 508. Clay County Block Coal Co. vs. Vandalia Railroad Company.

The petition alleged that the Vandalia Railroad Company in connection with the C. & E. I. Ry. Co. did not maintain joint rates on coal originating in the Brazil district over the lines of the two roads, and prayed the Commission to establish reasonable joint rates for the movement of coal over the lines of the two companies. Matter was taken up with the railroad companies by conference, and the companies filed tariffs establishing joint rates over the two lines that was satisfactory to the petitioner, and the petition was dismissed, and case closed.

No. 509. Clay County Block Coal Co. vs. C., C., C. & St. L. Ry. Co. et al.

The petitioner alleged that the C., C., C. & St. L. Ry. Co. in connection with the C. & E. I. R. R. did not maintain joint rates on coal originating in the Brazil district over the lines of the two roads, and appealed to the Commission for such rates. Matter was taken up by conference with the traffic department of the two companies and acceptable joint rates were established as prayed for in the petition, and case closed.

No. 510. C. W. Evans et al. vs. B. & O. S. W. R. R. Co. Depot Facilities at Nabb, Scott County, Indiana.

This was a petition for depot at Nabb, Scott County, Indiana. This case was set down for hearing, but before any further proceedings, the B. & O. S. W. R. R. Co. advised the Commission that it would construct the depot at Nabb, and the Commission is further advised that it has commenced the construction of the depot, and the same will be finished within a short time.

No. 511. Ex Parte Cleveland, Cincinnati, Chicago and St. Louis Railway Company.

The C., C., C. & St. L. Ry. Co. appealed to the Commission for permission to maintain its platform at its freight house in Anderson, Indiana, without the statutory clearances being observed. Matter was referred to the chief inspector for report and further conference with the railroad company, and matter is still pending.

No. 512. Ex Parte Chicago, South Bend and Northern Indiana Railway Company. Petition to Install Gate at Crossing of Said Company's Tracks and L. S. & M. S. Ry. Co. at Twin Branch, Indiana.

In the above case, on July 21, 1911, the following report and order were made:

McCLURE, *Commissioner*:

The Chicago, South Bend and Northern Indiana Railway Company filed an application for the approval of a gate to be used by said company in protecting the crossing of said company's line with an industrial siding of the Lake Shore and Michigan Southern Railroad at Twin Branch, Indiana. The siding in question does not lie parallel with the main line, and the main line at the point where the said gate is proposed to be erected is not crossed by the petitioner's line. The company has submitted a blue print showing the lay of the tracks where the crossing occurs, and also a blue print of the gate proposed to be erected for the protection of this crossing. The gate is of the same construction as those now in use on the I. U. T. line, which have heretofore been approved by the Commission.

It is recommended that the plan of the gate and the signal light attached thereto be approved and when installed the said traction company be authorized to run the crossing without stopping.

ORDER.

Comes now the Chicago, South Bend and Northern Indiana Railway Company and files its application for approval of its plan herewith submitted for a gate to protect the crossing of its line with the side-track of the Lake Shore and Michigan Southern Railway at Twin Branch, Indiana, and the Commission, having inspected the profile and plan for the construction of said gate, and being advised in the premises, approves the same; and it is ordered that when said gate is installed at said crossing said Chicago, South Bend and Northern Indiana Railway Company may run said crossing without stopping when the same is protected by said gate and proper signal lights attached thereto.

Approved by the Commission, July 21, 1911.

No. 513. Ex Parte Lexington Motor Car Company. Petition to Maintain a Bridge Between Buildings over Company's Loading Track at an Elevation of 16.73 Feet.

On July 24, 1911, the Commission made the following order denying the application:

Comes now the Lexington Motor Car Company, doing business at Connersville, Indiana, and makes application to the Commission to be permitted to construct and maintain a bridge between buildings and over the company's loading track at an elevation of 16.73 feet. The Commission, having directed the inspection of this location and having received the report of its Chief Inspector, and being otherwise advised in reference thereto, finds that said bridge should not be maintained at a height less than twenty-one feet as required by statute, and the application herein is denied.

No. 514. Columbia School Supply Company vs. C., H. & D. Ry. Co. et al. Petition for Change in Classification of Steel Bundles.

This matter was heard by the Commission and before a decision was rendered the petitioner became convinced that the classification was correct and upon petitioner's motion, an order was made dismissing the petition.

No. 515. Ex Parte Marion Light & Heating Company. Application for Approval of Plans for Construction of Transmission Power Wire Over the Line of the P., C., C. & St. L. Ry. at the Public Highway Crossing.

On July 31, 1911, the following order was made:

Ex-Parte Marion Light and Heating Co., application for approval of plans for construction of transmission power wire over the line of the P., C., C. & St. L. R. R. at the public highway crossing two miles northwest of Hartford City, also the public highway crossing of the said railroad one mile east of Hartford City; also at the crossing of the Lake Erie and Western Railroad one-half mile south of Eaton on public highway; also crossing of the Fort Wayne and Wabash traction line at Fourth street in the town of Eaton; also the crossing of the C. & O. Railroad of Indiana and P., C., C. & St. L. R. R. one-half mile north of Muncie on public highway, with a line carrying 33,000 volts; also plans for the construction of a transmission power wire crossing the tracks of the P., C., C. & St. L. at Railroad avenue and George street, Marion, Indiana; also crossing the tracks of said railroad at Railroad avenue at a point known as the "Old County Road;" also crossing the I. U. T. line at Railroad avenue and McFeeley bridge, in the city of Marion; also crossing the tracks of the P., C., C. & St. L. R. R., Main street, Upland, Indiana.

And the Commission having inspected the drawing and blue prints submitted by said Marion Light and Heating Co., and finding that said plans provide for the use of poles more than thirty-five feet in height; that the same are double cross-armed and properly braced to the pole; that the transmission wire is protected by means of a standard steel cable, copper clad, and that the elevation of said transmission power wires are at all points to be not less than thirty-five feet above the top of the rails of said railroad, the Commission therefore approves said plans, and authorizes the construction of said wires over said tracks at said points in conformity with the plans and prints submitted to said Commission, which are made a part of this order.

No. 516. In the Matter of Block Signals on the L. E. & W. R. R. Co.

The said railroad company having filed its petition setting out the condition of block signals on the lines of the company, on August 18, 1911, the following order was made by the Commission:

The Commission having under consideration the matter of block signals on the Lake Erie and Western Railroad, and it being shown to the Commission that on the line between Kokomo and Michigan City there is a train movement of only twelve trains per day on the south of said line and ten trains per day on the north of said line, upon consideration

It Is Ordered, That said Lake Erie and Western Railroad be relieved from installing block signals on its line between Kokomo and Michigan City, until the further order of the Commission.

It Is Further Ordered, That the Secretary of the Railroad Commission of Indiana transmit a copy of this order to general superintendent of said company.

No. 517. Pere Marquette Railroad Company. Block Signals.
Case pending.

No. 518. In the Matter of Block Signals on the C., H. & D. R. R. Co.

Said company having filed an application with blue prints praying that it be relieved from installing block signals on the Springfield division and Ft. Wayne branch. On August 3, 1911, the Commission made the following order:

In the above matter, it appearing to the Commission that the volume of traffic over said branches of said railroad company is such that the same can be dispatched without substantial hazard to life and property without block signals, upon consideration

It Is Ordered, That the said Cincinnati, Hamilton and Dayton Rail-
[8—28709]

road Company is hereby relieved from installing block signals on said branches of its said railroad.

It Is Further Ordered, That the Secretary of the Railroad Commission of Indiana transmit a copy of this order to the general superintendent of said railroad company.

No. 519. Toledo, St. Louis & Western Railroad Company. Block Signals.

Case pending.

No. 520. In the Matter of Automatic Block Signals on the Grand Trunk Western Railway. Petition for Extension of Time.

In the above case on November 11, 1911, the Commission made the following order:

The above matter coming on to be heard, and the Commission being satisfied that it is impossible for petitioner to equip its line of railway through the State of Indiana with automatic blocks by the first day of January, 1912, upon consideration

It Is Ordered, That the time for the installation of block signals on said line is hereby extended as follows:

For that portion of said railway lying between the westerly line of the State of Indiana and the city of Valparaiso, to July 1, 1912, and for the balance of its line of railway in the State of Indiana, to January 1, 1913.

It Is Further Ordered, That the Secretary transmit a copy of this order to Kretzinger, Rooney & Kretzinger, attorneys for the Grand Trunk Western Railway Company.

No. 521. Chicago & Erie Railroad Company. Block Signals.

Case pending.

No. 522. In the Matter of Block Signals on C. I. & L. Ry. Co. Petition for Relief.

On August 9, 1911, the following order was made:

In the above matter the Commission having had the petition of said railway company to be relieved from installing block signals on certain divisions of its railway, upon consideration

It Is Ordered, That the said Chicago, Indianapolis and Louisville Railway Company is hereby relieved from installing any kind of block signals on the following lines:

Monon to Michigan City.....	59.6 miles
Wallace Junction to Victoria.....	47.1 miles
Orleans to French Lick.....	17.7 miles
Bedford to Switz City.....	40.5 miles

It Is Further Ordered. That the Secretary transmit a copy of this order to A. H. Westfall, general manager of said company.

No. 523. In the Matter of Block Signals on Vandalia Railroad.

With reference to block signals on the Vandalia Railroad, on November 11, 1911, the Commission made the following order:

The above matter being before the Commission and the Commission being advised by its Block Signal Inspector, upon consideration

It Is Ordered, That the manual block system in use on the St. Louis and Vincennes divisions of the said Vandalia Railroad is hereby approved.

It Is Further Ordered, That the petitioner is relieved from equipping its Butler Branch and its line between Logansport and South Bend with any block system.

It Is Further Ordered, That the time for equipping its line between Otter Creek Junction and Logansport with any block system is hereby extended until January 1, 1913.

It Is Further Ordered, That the Secretary enclose three (3) copies of this order to John G. Williams, general counsel for the petitioner.

No. 524. New York, Chicago and St. Louis Railway Company.
Block Signals.

Case pending.

No. 525. J. M. Buck & Co. vs. G. R. & I. and T., St. L. & W. R. R.
Co's.

In the above case on August 23, 1911, the Commission made the following order, which was put in force by respondents, namely:

This being the day set for the hearing of the above entitled cause, and neither petitioner nor respondents making an appearance, but the Commission being advised from correspondence with them and from former investigations of the questions involved in this matter, upon consideration

It Is Ordered, That said respondents cease and desist from charging the sixth-class rate on logs and bolts from Berne, Bryant, Geneva, Hoagland, and Monroe to Bluffton.

It Is Further Ordered, That the joint rate for said movement in carloads, minimum 34,000 pounds, from Berne, Bryant, Geneva, Hoagland and Monroe, via Decatur to Bluffton, shall be $4\frac{1}{2}$ cents per hundred pounds, this order to be effective September 25, 1911, and to remain in force for five years thereafter.

It Is Further Ordered, That the Secretary of the Railroad Commission forward a copy of this order to petitioner and respondents.

No. 526. Baltimore & Ohio Railroad Company. Interlocker at Wellsboro.

Case pending.

No. 527. In the Matter of Vandalia Railroad Company, Vincennes Division. Running Engine Backwards.

This case was transferred from the I. R. Docket No. 3458. The Commission having been informed that said railroad company operated between Indianapolis and Martinsville, a local freight train, operating said train from Indianapolis to Martinsville with the engine running backwards, issued an order requiring said company to cease from the dangerous practice of backing an engine in road service over unprotected highway crossings; said company having failed to comply with the order of the Commission, the firm of Korbly and New, attorneys, were employed and have brought suit in the Superior Court of Marion County to restrain said company from continuing said practice, and at the time of this report, suit is still pending.

No. 528. Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company. Block Signals.

Case pending.

No. 529. Southern Railway Company. Block Signals.

Case pending.

No. 530. Lake Shore and Michigan Southern Railway Company. Block Signals.

Case pending.

No. 531. Ex Parte C., I. & L. Ry. Co. Petition to Maintain Certain Clearances.

Pending, to get further information from railroad company and report of inspector.

No. 532. Indiana Boys' School vs. The C., C., C. & St. L. Ry. Co. et al. Interchange of Freight Between Steam and Inter-urban Railroads.

In the above case the following opinion and order were made on the second day of December, 1911, namely:

McCLURE, *Commissioner*:

The petitioner, who is the superintendent of The Indiana Boys' School, as such alleges that this institution is situated at Plainfield, this State, and about two miles from the team track of the Vandalia Railroad located

at that point; that it is necessary to haul all of the coal supply and much other freight for said school in wagons from said team track; that the roads necessary to be traveled in doing such hauling are often in bad condition and in addition have heavy grades, which render such hauling laborious and expensive; that it is necessary to employ boys committed to said school to perform such work, and frequent escapes are made by them when so engaged, causing expense and trouble in causing their return, all of which is inconvenient and difficult to perform. That cars are necessarily held beyond the free time given for unloading, and demurrage charges accrue and have to be paid; that in one month such charges amounted to more than fifty dollars. That the State authorities in charge of said school granted to the traction company a right of way through the farm on which the school is located with the understanding that that company would deliver coal for the school upon a private siding located upon the premises, convenient to the point of consumption. That several years ago coal in carload lots was delivered by the traction company to the school on its private siding, and that said coal was received by the traction company from steam roads in steam road cars through the Indianapolis Union Railway connections at Indianapolis. That this method of handling coal to said school was objected to by the steam roads and further service of this character was discontinued and refused. That the Indianapolis Union Railway Company operates the Belt Railroad at Indianapolis and is a switching line, among other things transferring cars from one line to another connecting therewith, and praying that an order be granted directing the respondent C., C., C. & St. L. Ry. Co. to transfer and interchange coal in carload lots and other freight to and with the respondent T. H., I. & E. Traction Co. through the Indianapolis Union Railway.

The evidence shows that the Indiana Boys' School, a State correctional institution, is located near Plainfield. That the supply of coal for said school is obtained from the Indiana mines located in the Linton District and is now delivered at Plainfield over the Vandalia Railroad and is transferred from the cars to the school in wagons a distance of two miles. The roads are often in bad condition and contain heavy grades. The labor of hauling the coal to the school is performed by boys who are in the school under the direction of officers, and while engaged in this labor boys take advantage of the opportunity to make their escape, entailing trouble and expense to effect their return. The T. H., I. & E. Traction line extends from Indianapolis west to Terre Haute and passes through the lands upon which said school is located, and a switch from this line is so located that coal can be unloaded into the coal bins by dumping, or at the minimum of time and expense. The bins at the school have a capacity of ten carloads, and approximately two hundred carloads of coal are consumed annually at said school, or about 7,000 tons; in addition, about ten carloads of other freight are annually received by the school, and about eighty tons of L. C. L. freight. The rate applying on coal arriving at Plainfield over the Vandalia is 60 cents per ton. The cost of delivering the coal from the railroad to the bins at the school is 50 cents per ton. There is a consumption of eight to ten carloads of coal per week in the winter months, while in the summer season two carloads per week meet the demands. The time given to handling coal by the boys

of the school could be employed to better advantage in school or at work on the farm in connection with the school and less opportunity be given to escape.

The evidence is undisputed that interchange can be effected as prayed in the petition between the C., C., C. & St. L. Railway and the traction line through their connections with the Belt Road without danger to equipment or track, that such interchange is practical and less liability of damage to the cars when on the traction line than on steam lines, both on account of the manner of handling and from fire. Cars loaded with coal arriving in Indianapolis can be transferred to the school, unloaded and returned the same day. The rate on coal from the Linton District to Indianapolis arriving over the C., C., C. & St. L. Ry. is 50 cents per ton. There is a switching charge over the Belt line of \$2.00 per car, and the rate over the traction line would not exceed 30 cents per ton, to which may be added a nominal car service charge. This would make the cost substantially the same, but with less trouble and with better results to the school. The traction company interposes no objection to performing the service of moving the cars from Indianapolis to the school and returning them to its connection with the Belt. The Indianapolis Union Railway management objects only upon the ground that traffic is heavy and if additional freight were handled it would further congest the business of this company's line. The respondent C., C., C. & St. L. Ry. Co. interposes the same objection for the reason that it would to some extent retard their other business which is now delayed by the volume of business now moving over the Belt Road, and further, that the traction line has no business to give in return, that the interchange will be one sided, without reciprocity. It was further shown that the traction line has motive power to move five or six cars loaded with coal at one time, that its freight equipment is supplied with automatic couplers and air brakes. The interchange track connecting the Belt and traction line will accommodate twelve to fifteen cars at one time. The expense of repairing cars damaged while in charge of the traction company would be met by such company.

There is no connection between the Vandalia and the traction line, and can only be made at Plainfield or at the intersection of the lines west of Plainfield at great expense. An interchange at Terre Haute would be unavailing, for the reason that the traction company cannot operate steam freight cars through the streets of Terre Haute or Brazil.

Under the state of facts set out can interchange be required as sought by the petitioner herein? We think this question must be answered in the affirmative. Subdivision (j) of Section 3 of the Act of March 7, 1907, Acts 1907, p. 461, invests the Commission with authority under conditions expressed therein to order interchange of cars, carload shipments, less than carload shipments, and passenger traffic between steam and interurban railroads as well as between steam and interurban roads as between themselves. That portion of the section applicable to this question is as follows:

"(j) All carriers subject to this act and operating steam railroads, as between themselves, and all carriers subject to this act and operating interurban or suburban railroads, as between them-

selves, shall afford all reasonable and proper facilities for the interchange of traffic between their respective lines at junction points, and for there receiving, forwarding and delivering passengers and property, and each such carrier shall transfer, deliver and accept without delay or discrimination, and promptly forward all freight or cars, loaded or empty, and all or any passengers there tendered by any such connecting lines and destined to any point on its line or any connecting line: Provided, That in special cases where it is practicable, and the same may be accomplished without endangering the equipment, tracks or appliances of any such carrier, the Commission, upon application, may require any such steam and interurban or suburban railroad to interchange cars, carload shipments, less than carload shipments and passenger traffic, and for that purpose may require the construction of physical connections at junction points and the construction of switch and private track connections, as provided in this act." * * *

It will be observed that as between steam roads, and as between interurban lines the duty of affording interchange is absolute, while as between steam and interurban lines such interchange may be ordered by the Commission in special cases upon application, where it is practical and can be accomplished without danger to equipment and track.

The undisputed evidence is that interchange in this case is practical and can be accomplished without danger either to equipment or track and that every facility is had by the traction company, automatic coupler, air brakes and power to move the traffic successfully and the empties with expedition. This interchange is peculiar to itself and is therefore special in its characteristics.

The consumer of the coal and freight sought to be interchanged is a State correctional institution. The interchange method sought will be a desirable improvement over the present way of handling the school's supply of coal. It will enable the institution to use its present facilities for these purposes to an advantage in the conduct of the school. It will minimize the opportunity to escape from the school, and will enable officers to devote more time to the real purposes of the school, that of reforming and educating the youth committed to it. The steam line cannot be heard to object on the ground of the failure of the traction line to return freight to it for transportation. Railroads are chartered to do a carrying business for the public and if loaded cars could not be required to go off the rails upon which they are loaded the transportation business of the country would be practically destroyed. A more serious calamity could not be imagined. Under the Commission Act, shippers, on demand, are entitled to joint rates over connecting lines and are entitled to route their shipments. The originating line cannot be heard to object on the ground that the connecting carrier does not return any business to it. The initial line is entitled to reasonable compensation for the use of equipment while the same is off its rails, and this has been fixed by the roads at a nominal charge. If the line upon which business originates did not have the aid of the connecting line, the former would have to forego much business that would augment its revenues. The 200 carloads of coal handled annually for this school is that much new business. The

revenue received therefrom may be small, but the business comes in another company's equipment already loaded and can be carried with small additional outlay to present operating expense. In this instance the movement over the traction line is scarcely more than a switching service. The distance from Indianapolis to Plainfield is only fourteen miles. The movement to the school and return can be made in one day, so testified the general manager of the traction line. Without doubt the cars can be returned within the limits of free time. The Commission holds that this is a special case in which the State is interested. It will improve the service of one of the institutions of the State engaged in a highly important work. It is not for the benefit of any one engaged in gainful occupation. The object to be attained is in aid of the management of a correctional institution wholly maintained by the State. It is in a class by itself and every consideration connected with it appeals to us that it is such a special case that the Commission should grant the prayer of the petition. Therefore an order directing the interchange as asked will be entered.

ORDER.

The Commission, having heard the evidence in this case, and being advised in the premises, finds that physical connection for the interchange of traffic in carload lots between respondent companies has been made, and that interchange of coal and other freight in carload lots should be made between the Cleveland, Cincinnati, Chicago and St. Louis Railway Company and the Terre Haute, Indianapolis and Eastern Traction Company by means of the Indianapolis Union Railway Company operating the Belt Railroad located at Indianapolis, when such freight is destined to the Indiana Boys' School at Plainfield, this State.

It Is Further Ordered, That the order shall apply only to such freight originating within this State and transported wholly within the State of Indiana.

It Is Further Ordered, That all such freight so interchanged shall entitle the Indianapolis Union Railway Company to collect a switching charge of two dollars per car, which shall be paid by the management of the Indiana Boys' School.

It Is Further Ordered, That demurrage charges as now in effect under the uniform demurrage rules as adopted by the Railroad Commission of Indiana shall apply upon all cars delivered upon the Plainfield siding at the Boys' School in compliance with this order, and all demurrage accruing on any of such cars shall be paid to the C., C., C. & St. L. Ry. Co.

It Is Further Ordered, That all damages to any of the cars of the Cleveland, Cincinnati, Chicago and St. Louis Railway Company, or furnished by said company, while in possession of the Terre Haute, Indianapolis and Eastern Traction Company shall be repaired or paid by said traction company.

Pursuant to notice, counsel and other representatives of the railway companies appeared before the Commission this the twenty-first day of December, 1911, in the above entitled case and the following modified order was made in said case:

MODIFIED ORDER.

The Commission, having heard the evidence in this case and being advised in the premises, finds that physical connection for the interchange of traffic in carload lots between the lines of respondent companies has been made at the city of Indianapolis, and that such interchange at such point is practical and can be made without danger to equipment or track of either of the respondent companies; and

It Is Ordered, That interchange of coal and other freight in carload lots be made between the Cleveland, Cincinnati, Chicago and St. Louis Railway Company and the Terre Haute, Indianapolis and Eastern Traction Company through and by means of the Indianapolis Union Railway Company operating the Belt Railroad located at Indianapolis, Indiana, which connects the lines of the other respondent companies hereto, when such freight in carload lots is destined to the Indiana Boys' School at Plainfield, this State. And this order is especially intended to direct and require the transfer of coal in carload lots coming off the line of the Cleveland, Cincinnati, Chicago and St. Louis Railway by means of the said Belt Railroad to its connection with the Terre Haute, Indianapolis and Eastern Traction Company's line for transportation by said traction company to the siding from said traction line serving the Boys' School at Plainfield, Indiana.

It Is Further Ordered, That this order shall apply only to such freight originating within this State and transported wholly therein to the Boys' School at Plainfield, Indiana.

It Is Further Ordered, That all such freight so interchanged shall entitle the Indianapolis Union Railway Company to collect a switching charge of two dollars (\$2.00) per car, which shall be paid by the management of the Indiana Boys' School.

It Is Further Ordered, That demurrage charges as now in effect under the uniform demurrage rules as adopted by the Railroad Commission of Indiana shall apply upon all cars delivered upon the Plainfield siding at the Boys' School in compliance with this order, and all demurrage accruing on any of such cars shall be paid to the C., C., C. & St. L. Railway Company.

It Is Further Ordered, That all damages to any of the cars of the Cleveland, Cincinnati, Chicago and St. Louis Railway Company, or furnished by such company, while in possession of the Terre Haute, Indianapolis and Eastern Traction Company shall be repaired at the cost thereof or paid by said traction company.

It Is Further Ordered, That this order shall take effect and be in force from and after the first day of January, 1912, and continue in effect for a period of five years.

The Commission, having said cause under further consideration and being advised in the premises, upon its own motion alters and changes the Modified Order heretofore made, in this, to wit:

That the said Terre Haute, Indianapolis and Eastern Traction Company is hereby ordered and directed to pay to the Cleveland, Cincinnati, Chicago and St. Louis Railway Company the sum of one dollar (\$1) per day, or any part thereof, for the use of every car received from said

Cleveland, Cincinnati, Chicago and St. Louis Railway Company for the purpose of transporting coal or other freight to the Indiana Boys' School at Plainfield, Indiana; said time to be computed from the delivery of said car by said Cleveland, Cincinnati, Chicago and St. Louis Railway Company to said Terre Haute, Indianapolis and Eastern Traction Company and the return of the same by said traction company to its connection with the Indianapolis Union Railway Company in the city of Indianapolis, Indiana, and this shall be effective from and after January 25, 1912.

Ordered by the Railroad Commission of Indiana.

Attest: J. L. REILEY, Secretary

No. 533. Chicago & Erie Railroad Company. Petition to Maintain Certain Clearances.

This matter referred to chief inspector for examination. Inspector made report which was referred to Baldwin, superintendent, with recommendation that he make the changes indicated, and advise the Commission. Changes are now being made, and case is pending.

No. 534. Vandalia Railroad Company vs. Town of Lyons, Indiana.
Appeal from an Ordinance Requiring Company to Employ Flagman at Intersection of the Railroad and Broad Street in said Town.

In the above case, the case was dismissed, and the company duly installed the flagman required by the resolution, a slight modification of the hours having been made with the consent of the Railroad Commission and the Board of Trustees, and in said case, the following opinion was rendered and order made:

Wood, *Chairman*:

On August 7, 1911, the town of Lyons passed the following resolution:

"Resolved, by the Board of Trustees of the town of Lyons, in Greene County, Indiana, That the Vandalia Railroad Company be, and said company is hereby required, on or before September 22, 1911, to employ and station an adult male guard or flagman at the intersection of Broad street in said town with the track or tracks of said railroad company, and that it shall be the duty of said guard or flagman to warn all persons on foot or in vehicles, of all trains, engines or detached cars at said crossing, and so to guard said crossing between the hours of 7:00 o'clock a. m. and 9:00 o'clock p. m. of each and every day of the year, and that it shall be the duty of said railroad company to furnish said guard or flagman a suitable flag for use in daytime, and a suitable lantern for use at night."

And, on the twenty-first day of August, 1911, the Vandalia Railroad Company filed with the Commission an appeal from the order of said board which passed said resolution.

The grounds of said appeal are substantially that said town of Lyons had heretofore passed an ordinance requiring the installation of an alarm bell at said crossing, which had been duly constructed by said railroad company at a cost of \$450 and that said Board of Trustees had afterwards requested the railroad company to reduce the speed of its trains through the town, and thereupon said railroad company issued an order requiring all trains when passing through said town to reduce their speed to fifteen miles an hour, and that the maintenance of said alarm bell and the reduction of speed of said company's trains as aforesaid are sufficient and ample protection at said crossing, and that the said crossing and surroundings with reference to said railroad and said street, and the number of trains passing over said crossing, and the amount of travel on said crossing are not such as to justify the maintenance of a crossing watchman at an estimated expense of \$400 or \$500 a year.

In our A. R. No. 263, Second Annual Report, page 309, we considered and compared the powers of the local authorities and the Railroad Commission with reference to the safe operation of railroad trains on and across the streets of cities and towns, and we held (page 312) that the General Assembly has committed to the local authorities the chief power and made it their primal duty to govern the operation of trains and cars at railroad crossings of all kinds within the towns and cities and, indeed, as we noted at that time, an appeal to the Railroad Commission is permitted only in respect to the resolution or order of the town council as to electric gongs or alarms, or gates or flagmen at street crossings. As to an appeal in these cases, the statute (Section 9005, Subdivision 14, Burns Revision) reads as follows:

"The Commission shall docket the appeal at once, and shall send to such town a member of the Commission, who shall inspect the crossing or crossings in controversy and report to the Commission, and the Commission shall determine the matter upon the grounds stated in the notice of appeal only, within twenty days, and enter upon its record an order, either affirming or overruling such resolution of such board of trustees as the merits of the case shall warrant."

In accordance with this law, on Monday, the twenty-seventh day of August, 1911, Commissioner Wood visited the town of Lyons and carefully examined the grade crossing of Broad street in that town with the Vandalia railroad. It was apparent to him, and he has so reported to the Commission, that this crossing is exceedingly dangerous. There are, indeed, two street crossings within fifty feet of each other that might be protected by one watchman. There are business houses on the street on both sides of the railroad crossing. The school building, with an attendance of 100 children, is on one side of the crossing, and the main residence part of the town on the other side. The country surrounding Lyons is very fertile and thickly settled, some of the land being worth as much as \$200 an acre. A greater number of people use the crossing than ordinarily in a town of 1,200 population. Two persons have lost their lives, as we are informed, at this crossing, and considering the obstructions to view, the number of persons passing over it, the curves upon the railroad, the num-

ber of trains passing without stopping, the switching to be done, the two crossings, and many other things that occur instantly to anyone who has heretofore had these matters under consideration, there can be no question but that the crossing is dangerous and requires protection. The railroad company seems to have conceded this fact when, without an appeal to the Commission, and without question, it has heretofore erected an electric bell, and has even, at the request of the town council, made an order requiring a speed of fifteen miles an hour of trains passing over this crossing.

The objection to the resolution, one of the grounds of appeal, that the town has heretofore required the electric bell, is not sufficient. It is the duty of the town board to require such protection at the crossing as will save the lives of people using it. The town board did, indeed, pass an ordinance requiring the installation of the electric bell, but when it was apparent to the board that this protection was insufficient, especially after its use for more than a year, the board had the right to go on and require a watchman instead of an electric bell. The railroad company will lose very little by this, inasmuch as the bell can be used at some other crossing. As to the slow speed order, every railroad company, as well as this Commission, has had the common experience of all, that such orders are not generally effective. Only recently, one of the most disastrous wrecks in the history of the Pennsylvania railroad probably would not have occurred if a slow speed order had been obeyed. Nothing is more difficult than to enforce such orders.

The Commission desires very much to adopt some general rule on the subject of appeals from the decisions of the town boards establishing electric bells, or gates, or watchmen. The town board necessarily understands local conditions and wants better than the Commission can. As we have heretofore held, it is the first and primal authority to whom the Legislature has granted the administrative function of securing safety for its people by orders of this kind. If the crossing is very dangerous without protection, then the protection afforded by the order of the town board should not be disturbed by the Railroad Commission, and this is really the principle that should govern us in decisions of this kind. In this case the crossing, or rather two crossings, are exceedingly dangerous. There can be no question as to this fact, and it is accentuated by two deaths which have occurred at the crossing at this place because the railroad ran across the street at grade at this particular point. This Commission would be unable to say that another death would not occur on this account unless a watchman was provided. It would be unable to say that two more fatal accidents, or many more fatal accidents, would not occur. Does the statute intend that with the fact of danger fully proved and squarely in evidence, merely because it will cost a fraction of the value of a human life annually to protect this crossing, that the Railroad Commission, charged with the general duty of supervising the railroads that safe operation may take place, should set aside the expressed will of an entire community in its official effort to protect against an imminent and impending danger of this kind?

It is true, of course, that if every town passed a resolution requiring a watchman at every street, the railroad company could not operate except

at a loss, and it was perhaps for this very reason that the right of appeal was given to the Commission, that where the resolution was passed only from malice or a desire to get even with the railroad company for some real or fancied grievance, or to provide a place or job for some popular citizen, the Commission in such case should exercise the power to set aside the finding of the town board. But in this case, as in every case, the gist of the whole matter, the merit of the controversy, the gravamen of the issue must be whether or not the crossing is actually and perhaps unusually dangerous. We have found this to be the fact as to the crossing at Lyons.

The case of the appeal of the E. & T. H. R. R. Co. from the order of the town board of Hazelton is very different from this case. There the Commission sustained the appeal of the railroad company, because upon examination it was clear that on account of the fact that the railroad at Hazelton was constantly used as a thoroughfare by the citizens, it was far more important that there should be bells, whose sounds could be heard by persons walking on the railroad tracks between the crossings, as well as at the crossings, and that there should be a slow speed ordinance rather than an order requiring gates and watchmen. The conditions were essentially different and it seems to us also, that the board had required too much of the company in ordering three sets of gates and three watchmen; that being the requirement of the board for the protection of this crossing, the town being about the size of Lyons. In this case there is no gate required and only one watchman.

In this connection, it will be observed that in the original construction of railways in this State, no effort, or very little effort was made to separate the grades of highway and railway. At the time of construction the speed of trains was very slow and the number of trains very few. A traveler on the highway could easily get off the crossing before the collision took place. With the growth of population and business, it is a very different case now. Trains are constantly passing on the railroads, and the speed is so great that a man or team approaching has little time to escape fatality.

The policy of the law of this State seems to be not to separate the grades, but to protect the crossings. The railroad companies themselves have shown very little disposition to enter upon any general and systematic work to separate the level crossings of highways and railroads in this State. Therefore, just as long as the railroad companies run over these crossings at grade, constantly increasing the number and speed of their trains, just so long will the people of the State in the common councils of cities, in the boards of town trustees, and of county commissioners, seek some protection for people passing over the railroads on the public highways. This Commission has done all in its power to have the General Assembly prescribe a general scheme for the protection of travelers on highways by the elimination of grade crossings. Our carefully prepared bills on that subject have not passed, but in the place of them we have such laws as we are considering now. In view of the fact that during the last four years 219 persons in this State have been struck and killed by the railroads on the grade crossings, we do not feel that this Commission in the consideration of questions of this kind should reject without meri-

torious reasons, the action of town boards in the effort they make to prevent such fatalities.

For the reasons given the appeal in this case is denied, and an order will be ordered accordingly.

In the above case, the Commission having under consideration a resolution passed by the trustees of the town of Lyons on August 7, 1911, said resolution being as follows:

"Resolved, by the board of trustees of the town of Lyons, in Greene County, Indiana, That the Vandalia Railroad Company be, and said company is hereby required, on or before September 22, 1911, to employ and station an adult male guard or flagman at the intersection of Broad street in said town, with the track or tracks of said railroad company, and that it shall be the duty of said guard or flagman to warn all persons on foot or in vehicles, of all trains, engines or detached cars at said crossing, and so to guard said crossing between the hours of 7:00 o'clock a. m. and 9:00 o'clock p. m. of each and every day of the year, and that it shall be the duty of said railroad company to furnish said guard or flagman a suitable flag for use in the daytime, and a suitable lantern for use at night."

And the Commission having carefully examined the grade crossing mentioned in the resolution by one of its members, upon full report from him to the Commission, and upon consideration—

It Is Ordered, That the said resolution of such board of trustees of the town of Lyons is hereby affirmed.

It Is Further Ordered, That within twenty-five days from the date of this order, the said Vandalia Railroad Company shall employ and furnish an adult male guard or flagman at the intersection of said Broad street in said town with the track or tracks of said Vandalia railroad, whose duty it shall be to warn all persons on foot or in vehicles, of all trains, engines or cars passing over said crossing; said watchman to be on duty continually between the hours of 7:00 o'clock a. m. and 9:00 o'clock p. m. each and every day of the year. Said railroad company to furnish said guard or flagman with a suitable flag for use in the daytime, and a suitable lantern for use at night.

It Is Further Ordered, That the Secretary of the Railroad Commission shall transmit a copy of this order to the appellant and the appellee.

No. 535. Aaron Gardner et al. vs. C., H. & D. R. R. and C. & O. Ry. Cos.

This was a petition to require the respondent railroad companies to construct suitable and adequate passenger depot on their respective lines at Cottage Grove, this State. The following opinion and order were made:

McCLURE, *Commissioner*:

The petitioners in the above entitled case show that the C., H. & D. and the C. & O. railway companies at Cottage Grove, this State, where the lines of said companies intersect, do not have adequate depot facilities:

that several years ago their joint station at that place burned and since that time a temporary structure is used for depot purposes; and praying the Commission to order the construction of a joint station at that point adequate for the needs of the traveling public.

A conference was held with the general superintendents of each railroad and with the representatives of the petitioners.

The railroad companies were willing to unite in the construction of a joint station at Cottage Grove, but it developed at the conference that difficulty existed in securing a suitable location for the station building, as it was regarded as desirable to change the location from where the present station is maintained to one of the angles at the intersection of the two lines. As the station now is located it is on the line of the C., H. & D. some little distance from the crossing, and the C. & O. reaches the station by the use of a wye from its track to the depot on the line of the C., H. & D.

It was agreed at the conference that the general superintendents of the two lines would meet at Cottage Grove and secure if possible a suitable site for the construction of a joint station; if not, that each company would construct its own station.

General Superintendent Alfred of the C., H. & D. and General Superintendent Stevens of the C. & O. met at Cottage Grove to attempt to secure a suitable site at the junction for a joint station building, but failed.

Each company has submitted blue prints of plans for the construction of independent stations at that point, the C. & O. locating its station south of the junction of the two lines and in the southeast angle of the intersection of the C. & O. Railway with the Liberty and Oxford pike; the C., H. & D. locating its station a short distance east of the junction near the intersection of its line of road with the public highway.

The construction and maintenance of two station buildings instead of a joint station is more expensive for the roads and less convenient for the public, particularly for interchange traffic between the lines at that point. The Commission is not invested with authority to require the construction of a joint station. The act of March 9, 1907, known as the Commission Act, and the act of March 6, 1911, make it the duty of every steam railroad company to provide and maintain adequate depots and depot buildings, and there is no statutory requirement imposing the duty upon railroads to maintain joint stations at their intersections.

The plans of the C. & O. Railway Company provide a one-story frame depot building with a waiting room 21 feet by 18 feet, an office room 9 feet 8 inches by 27 feet, a baggage and freight room 20 feet by 21 feet, with a platform of adequate dimensions between the track and depot extending in either direction from the depot a distance of approximately 50 feet. This is regarded as an adequate provision in the way of station facilities for that point.

The C., H. & D. present plans for a station composed of three rooms, a waiting room of 20 x 16 feet, an office 10 x 16 feet and a freight room 20 x 16 feet, with a platform extending 100 feet from the ends of the building with cement curb and cinder construction. This will also be of sufficient size and convenience to accommodate the public so far as station facilities are concerned at Cottage Grove on this line of road.

It is recommended that the plans of the two companies be approved and the stations ordered constructed ready for occupancy by January 1, 1912.

ORDER.

WHEREAS, Complainants filed a petition herein requesting an order for the construction of a depot on the line of the C. & O. Railway at Cottage Grove; and

WHEREAS, Said railway company has submitted blue prints showing plans for the construction of the depot at said point; and

WHEREAS, Said plans have been approved by the Railroad Commission of Indiana;

It Is Therefore Ordered, That said railway company construct a station at the point shown on its blue prints submitted herein and according to the plans submitted by said company for the approval of said Commission, and that said station be constructed and ready for occupancy not later than January 1, 1912.

No. 536. Railroad Commission of Indiana vs. Wabash Railroad Company et al.

In this case the Commission commenced before the Interstate Commerce Commission, a similar suit having been commenced before said Commission by the Indianapolis Freight Bureau. The Commission retained Henley, Watson and Gates, the attorneys of the Indianapolis Freight Bureau, to represent it in said cause. On December 4th, said cause was heard by an Examiner at Indianapolis, and the same is now pending. The petition before the Interstate Commerce Commission is as follows:

RAILROAD COMMISSION OF INDIANA,

William J. Wood, Chairman,

John F. McClure,

Frank E. Payne,

Commissioners,

vs.

Wabash Railroad Company, Chicago &

Alton Railroad Company, Clover

Leaf System, Toledo, St. Louis &

Western Railroad Company.

The petition of the above named complainants respectfully shows:

I. That the Railroad Commission of Indiana is duly created, organized and existing under and by virtue of the laws of the State of Indiana, and William J. Wood, John F. McClure and Frank E. Payne are the duly appointed and serving Railroad Commissioners thereof.

II. That the above named defendants are common carriers engaged in the transportation of property by railroad between points of different States of the United States and largely in the States of Michigan, Ohio,

Indiana, Illinois, Missouri and Iowa, and particularly from the points in Indiana hereinafter enumerated to points in the State of Missouri, and as such common carriers are subject to the provisions of the Act to Regulate Commerce, approved February 4, 1887, and acts amendatory thereof or supplementary thereto.

III. That said defendants demand, collect and receive class and commodity rates on an unreasonably higher basis on traffic destined to Missouri River cities, Kansas City to Omaha, inclusive, from points of origin on said defendants' lines of road in Indiana, to wit:

Stations on Wabash R. R.—

Ft. Wayne,
Huntington,
Wabash,
Peru,
Logansport,
Delphi,
Lafayette,
Attica,
Covington,
Williamsport,
West Lebanon,
State Line,
and intermediate towns
and localities.

*Stations on Toledo, St. Louis
and Western R. R.—*

Decatur,
Bluffton,
Van Buren,
Marion,
Swayzee,
Kokomo,
Frankfort,
Linden,
Veedersburg,
Cayuga,
and intermediate towns
and localities.

than is in effect, demand, collected and received on the same kinds of traffic from Chicago, Illinois, and cities, towns and localities on said defendants' lines of road in the State of Illinois, which are accorded the Chicago basis of rates, to wit:

Stations on Wabash R. R.—

Chicago,
 Brisbane,
 Essex,
 Reddick,
 Forest,
 Gibson,
 Lotus,
 Mansfield,
 Lodge,
 Bement,
 Oakley,
 Danville,
 Tilton,
 Homer,
 Sidney,
 Tolono,
 Ivesdale,
 and intermediate towns
 and localities.

*, Stations on Chicago and
Alton R. R.—*

Chicago,
 Joliet,
 Gardner,
 Dwight,
 Pontiac,
 Chenoa,
 Towanda,
 and intermediate towns
 and localities.

*Stations on Toledo, St. Louis
and Western R. R.—*

Humrick,
 Ridge Farm,
 Metcalf,
 Oakland,
 Charleston,
 Neoga,
 Stewardson,
 Cowden,
 Ramsey,
 Sorento,
 and intermediate towns
 and localities.

IV. That through class rates to said Missouri River points from the above mentioned Indiana points via said defendants' lines of road are made the sum of local rates to St. Louis, Mo., applied as proportional rates to upper Mississippi River crossings to Dubuque, inclusive, plus the local rates beyond the Mississippi River, as follows:

WABASH R. R.		Class Rates to Mississippi River.					Class Rates Mississippi River to Missouri River.					Total Rates to Missouri River.				
FROM—		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Fort Wayne.....	43	36 $\frac{1}{2}$	27 $\frac{1}{2}$	19	15 $\frac{1}{2}$	15 $\frac{1}{2}$	60	45	35	27	22	103	81 $\frac{1}{2}$	62 $\frac{1}{2}$	46	37 $\frac{1}{2}$
Huntington.....	42	35 $\frac{1}{2}$	26 $\frac{1}{2}$	18 $\frac{1}{2}$	15	15	60	45	35	27	22	102	80 $\frac{1}{2}$	61 $\frac{1}{2}$	45 $\frac{1}{2}$	37
Wabash.....	39 $\frac{1}{2}$	33 $\frac{1}{2}$	25	17	14	14	60	45	35	27	22	99 $\frac{1}{2}$	78 $\frac{1}{2}$	60	44	36
Peru.....	39 $\frac{1}{2}$	33 $\frac{1}{2}$	25	17	14	14	60	45	35	27	22	99 $\frac{1}{2}$	78 $\frac{1}{2}$	60	44	36
Logansport.....	39	33	25	17	14	14	60	45	35	27	22	99 $\frac{1}{2}$	78 $\frac{1}{2}$	60	44	36
Delphi.....	38	32 $\frac{1}{2}$	24	16 $\frac{1}{2}$	13 $\frac{1}{2}$	13 $\frac{1}{2}$	60	45	35	27	22	98	77 $\frac{1}{2}$	59	43 $\frac{1}{2}$	35 $\frac{1}{2}$
LaFayette.....	38	32 $\frac{1}{2}$	24	16 $\frac{1}{2}$	13 $\frac{1}{2}$	13 $\frac{1}{2}$	60	45	35	27	22	98	77 $\frac{1}{2}$	59	43 $\frac{1}{2}$	35 $\frac{1}{2}$
Attica.....	36 $\frac{1}{2}$	31	23 $\frac{1}{2}$	16	13	13	60	45	35	27	22	96 $\frac{1}{2}$	76	58 $\frac{1}{2}$	43	35 $\frac{1}{2}$
Covington.....	36 $\frac{1}{2}$	31	23 $\frac{1}{2}$	16	13	13	60	45	35	27	22	96 $\frac{1}{2}$	76	58 $\frac{1}{2}$	43	35
Williamsport.....	36 $\frac{1}{2}$	31	23 $\frac{1}{2}$	16	13	13	60	45	35	27	22	96 $\frac{1}{2}$	76	58 $\frac{1}{2}$	43	35
West Lebanon.....	36 $\frac{1}{2}$	31	23 $\frac{1}{2}$	16	13	13	60	45	35	27	22	96 $\frac{1}{2}$	76	58 $\frac{1}{2}$	43	35
State Line.....	36 $\frac{1}{2}$	31	23 $\frac{1}{2}$	16	13	13	60	45	35	27	22	96 $\frac{1}{2}$	76	58 $\frac{1}{2}$	43	35
T., St. L. & W. R. R.																
Decatur.....	43	36 $\frac{1}{2}$	27 $\frac{1}{2}$	19	15 $\frac{1}{2}$	15 $\frac{1}{2}$	60	45	35	27	22	103	81 $\frac{1}{2}$	62 $\frac{1}{2}$	46	37 $\frac{1}{2}$
Bluffton.....	43	36 $\frac{1}{2}$	27 $\frac{1}{2}$	19	15 $\frac{1}{2}$	15 $\frac{1}{2}$	60	45	35	27	22	103	81 $\frac{1}{2}$	62 $\frac{1}{2}$	46	37 $\frac{1}{2}$
Van Buren.....	43	36 $\frac{1}{2}$	27 $\frac{1}{2}$	19	15 $\frac{1}{2}$	15 $\frac{1}{2}$	60	45	35	27	22	103	81 $\frac{1}{2}$	62 $\frac{1}{2}$	46	37 $\frac{1}{2}$
Marion.....	39 $\frac{1}{2}$	33 $\frac{1}{2}$	25	17	14	14	60	45	35	27	22	99 $\frac{1}{2}$	78 $\frac{1}{2}$	60	44	36
Kokomo.....	39 $\frac{1}{2}$	33 $\frac{1}{2}$	25	17	14	14	60	45	35	27	22	99 $\frac{1}{2}$	78 $\frac{1}{2}$	60	44	36
Frankfort.....	38	32 $\frac{1}{2}$	24	16 $\frac{1}{2}$	13 $\frac{1}{2}$	13 $\frac{1}{2}$	60	45	35	27	22	98	77 $\frac{1}{2}$	59	43 $\frac{1}{2}$	35 $\frac{1}{2}$
Linden.....	36 $\frac{1}{2}$	31	23 $\frac{1}{2}$	16	13	13	60	45	35	27	22	96 $\frac{1}{2}$	76	58 $\frac{1}{2}$	43	35
Veedersburg.....	36 $\frac{1}{2}$	31	23 $\frac{1}{2}$	16	13	13	60	45	35	27	22	96 $\frac{1}{2}$	76	58 $\frac{1}{2}$	43	35
Cayuga.....	32 $\frac{1}{2}$	27 $\frac{1}{2}$	22	14 $\frac{1}{2}$	11 $\frac{1}{2}$	11 $\frac{1}{2}$	61	45	35	27	22	92 $\frac{1}{2}$	72 $\frac{1}{2}$	57	41 $\frac{1}{2}$	35 $\frac{1}{2}$

while through class rates to said Missouri River points from Chicago and the above named Illinois points via said defendants' lines of road are made by adding certain differentials to the Mississippi River crossings, to the local rates beyond, as follows:

	1	2	3	4	5	A	B	C	D	E
Differentials to Mississippi River	20	20	10	5	5	$7\frac{1}{2}$	$7\frac{1}{2}$	5	5	5
Local Rates beyond.	60	45	35	27	27	22	$24\frac{1}{2}$	17	15	11
Through Rates.	80	65	45	32	27	32	27	22	18	16

resulting in grossly unfair, unjust, unlawful and discriminatory class rates as charged the shippers located in the Indiana cities and towns above mentioned on traffic shipped to said Missouri River points in competition with shippers at Chicago and the other Illinois points above named.

V. That through rates on commodities to said Missouri River points from the above mentioned Indiana points via said defendants' lines of road are made the sum of local rates to St. Louis, Mo., applied as proportional rates to upper Mississippi River crossings, plus the local rates beyond the Mississippi River (with few possible exceptions where combination of locals may make on Chicago and Peoria rate points), while through rates on like commodities shipped from Chicago, Ill., and the above named Illinois points via said defendants' lines of road are made on basis of differentials to the Mississippi River crossings, plus the commodity rates beyond, resulting in grossly unfair, unlawful and unjustly discriminatory charges for transportation to the shippers located at the aforesaid Indiana cities and towns on traffic destined to said Missouri River points, as compared and in competition with shippers of Chicago and other Illinois points above named, illustrated in part as follows:

COMMODITY.	From	To Mississippi River.	Mississippi River to All-So. ri River.	Through Rate.
Castings, C. L.	Attica, Indiana. Chicago, Illinois	Fifth class Differential	\$0 13 05	\$0 22 27
Farm Wagons, C. L.	LaFayette, Indiana. Chicago, Illinois	Fifth class Differential	13½ 07½	22½ 27½
Kitchen Cabinets, C. L.	LaFayette, Indiana. Chicago, Illinois	Third class Differential	24 07½	22½ 27½
Castings, C. L.	LaFayette, Indiana Chicago, Illinois	Fifth class Differential	13½ 05	22 27
Canned Goods, C. L.	Delphi, Indiana Chicago, Illinois	Fifth class Differential	13½ 05	22 27
Automobile Engines, C. L.	Logansport, Indiana Chicago, Illinois	Fifth class Differential	14 07½	24½ 29½
Canned Goods, C. L.	Peru, Indiana Chicago, Illinois	Fifth class Differential	14 05	22 27
Handles, C. L.	Logansport, Indiana Chicago, Illinois	Fifth class Differential	14 07½	24½ 29½
Refrigerators, C. L.	Peru, Indiana Chicago, Illinois	Fourth class Differential	17 07½	22½ 27½
Gas Engines, C. L.	Peru, Indiana Chicago, Illinois	Fifth class Differential	14 07½	24½ 29½
Furniture, C. L.	Wabash, Indiana Chicago, Illinois	Second class Differential	33½ 07½	56 30
Canned Goods, C. L.	Wabash, Indiana Chicago, Illinois	Fifth class Differential	14 05	22 27
Castings, C. L.	Huntington, Indiana Chicago, Illinois	Fifth class Differential	15 05	27 27
Bar Iron, C. L.	Et. Wayne, Indiana Chicago, Illinois	Commodity rate Differential	11 05	22 27

COMMODITY.	From	To Mississippi River.		Mississippi River to Missouri River.		Through Rate.
		Fifth class. Differential	15½ 07½	Class A. Class A.	24½ 24½	
Gas Engines, C. L.	Ft. Wayne, Indiana. Chicago, Illinois.					40 32
Road Machinery, C. L.	Ft. Wayne, Indiana. Chicago, Illinois.	Fifth class. Differential	15½ 07½	Class A. Class A.	24½ 24½	40 32
Washing Machinery, C. L.	Ft. Wayne, Indiana. Chicago, Illinois.	Fourth class. Differential	19 05	Fourth class. Fourth class.	27 27	46 32
Canned Goods, C. L.	Cayuga, Indiana. Chicago, Illinois.	Fifth class. Differential	11½ 05	Fifth class. Fifth class.	22 22	33½ 27
Handles, C. L.	Veedsburg, Indiana. Chicago, Illinois.	Fifth class. Differential	13 07½	Class A. Class A.	24½ 24½	37½ 32
Kitchen Cabinets, C. L.	Frankfort, Indiana. Chicago, Illinois.	Third class. Differential	24 07½	Commodity rates. Commodity rates.	22½ 22½	46½ 30
Farm Machinery, C. L.	Frankfort, Indiana. Chicago, Illinois.	Fifth class. Differential	13½ 07½	Class A. Class A.	24½ 24½	38 32
Clay Working Machinery, C. L.	Frankfort, Indiana. Chicago, Illinois.	Fifth class. Differential	13½ 07½	Class A. Class A.	24½ 24½	38 32
Stoves and Ranges, C. L.	Kokomo, Indiana. Chicago, Illinois.	Fifth class. Differential	14 05	Fifth class. Fifth class.	22 22	36 27
Wire Fence, C. L.	Kokomo, Indiana. Chicago, Illinois.	Commodity rate. Differential	11 05	Fifth class. Fifth class.	22 22	33 27
Canned Goods, C. L.	Kokomo, Indiana. Chicago, Illinois.	Fifth class. Differential	14 05	Fifth class. Fifth class.	22 22	36 27
Castings, C. L.	Kokomo, Indiana. Chicago, Illinois.	Fifth class. Differential	14 05	Fifth class. Fifth class.	22 22	36 27
Glass Bottles, C. L.	Marion, Indiana. Chicago, Illinois.	Fifth class. Differential	14 05	Fifth class. Fifth class.	22 22	36 27
Iron Beds, C. L.	Marion, Indiana. Chicago, Illinois.	Fifth class. Differential	14 05	Fifth class. Fifth class.	22 22	36 27

Furniture and Chairs, C. L.	Marion, Indiana. Chicago, Illinois	Second class. Differential	.33½ .07½	Commodity rate. Commodity rate	.22½ .22½	.56 .30
Lamp Chinneys, C. L.	Marion, Indiana. Chicago, Illinois	Third class. Differential	.25 .10	Third class. Third class	.35 .35	.60 .45
Iron Chain, C. L.	Marion, Indiana. Chicago, Illinois	Fifth class. Differential	.14 .05	Fifth class. Fifth class	.22 .22	.36 .45
Wind Mills and Pumps, C. L.	Bluffton, Indiana. Chicago, Illinois	Fifth class. Differential	.15½ .07½	Commodity rate. Commodity rate	.22½ .22½	.38 .30
Castings, C. L.	Decatur, Indiana. Chicago, Illinois	Fifth class. Differential	.15½ .05	Fifth class. Fifth class	.22 .22	.37½ .27

And other commodities which petitioners ask leave to enumerate and offer evidence with reference thereto at the hearing.

That said defendants have failed and neglected to grant to the shippers at the Indiana cities and towns above named on their respective lines of road reasonable and relatively fair commodity rates on traffic to said Missouri River points in keeping with the basis established and in effect from Chicago and the Illinois points above named on defendants' lines of road, to the great disadvantage of said Indiana shippers and unduly preferring the shippers at Chicago and the other Illinois points above named.

VI. Upon the above facts, as stated, the complaint charges the said defendants, as set forth in paragraphs III, IV and V, with violations of the said Act to Regulate Commerce, as follows:

VII. Violation of Section 1 of said Act: The charges made for the services rendered are unreasonable and unjust. It is claimed that a reasonable basis or adjustment for through class rates on traffic from the cities and towns in Indiana above mentioned to said Missouri River points by means of differentials to Mississippi River crossings, in relative proportion to the established differentials from Chicago and the above named Illinois points to Mississippi River crossings in effect and applying on traffic destined to said Missouri River points which are for first class 20 cents, second class 20 cents, third class 10 cents, fourth class 5 cents, fifth class 5 cents, class A $7\frac{1}{2}$ cents, class B $7\frac{1}{2}$ cents, class C 5 cents, class D 5 cents, class E 5 cents per 100 pounds, governed by Western Classification; that a reasonable basis or adjustment for commodity through rates on traffic from said Indiana cities and towns to said Missouri River points is by adding relative differentials up to the Mississippi River crossings, corresponding to the class or commodity differentials applying from Chicago and the above named Illinois points to Mississippi River, to the commodity rates beyond the Mississippi River.

VIII. Violation of Section 2 of said Act: The excessive charges demanded and collected for performing a like and contemporaneous service in the transportation of a like kind of traffic, is unjust discrimination.

IX. Violation of Section 3 of said Act: An undue and unreasonable preference is given to firms and localities, also unreasonable prejudice and disadvantage is imposed in other respects.

Wherefore the petitioner prays that the defendants may be required to answer the charges herein and that due hearing and investigation be had, and if, upon such investigation and hearing, it be found that other common carriers are necessary parties to this proceeding, in order that the orders of this Commission may be duly enforced, that such carriers be made parties defendant herein, and be required to make answer hereto, all to the end that after full and complete hearing and investigation, an order or orders be made commanding the said defendants to cease and desist from said violations of the Act to Regulate Commerce, and that this honorable Commission ascertain and determine the lawful rates and practices in the premises and an order or orders be made requiring the said carriers to conform thereto; that said defendants be ordered to establish a reasonable basis or adjustment for through rates on traffic from said cities and towns in Indiana to said Missouri River points, by

the adoption of a scale of relative differentials to the Mississippi River crossings, proportionate with the differentials as established and in effect from Chicago and the above named Illinois points to the Mississippi River on traffic destined to said Missouri River points, as set forth in Paragraph VII.

And the petitioner prays for such other and further order or orders and relief as the Commission may deem necessary in the premises.

RAILROAD COMMISSION OF INDIANA,

By WILLIAM J. WOOD,

Chairman.

WILLIAM J. WOOD,

Commissioner.

JOHN F. McCLURE,

Commissioner.

FRANK E. PAYNE,

Commissioner.

HENLEY, MATSON & GATES,

Attorneys for the Complainant,

805 Majestic Building, Indianapolis, Indiana.

Dated at Indianapolis, Ind., October 7, 1911.

No. 537. J. M. Buck & Co. vs. Toledo, St. Louis and Western Railroad Company. Switching Rates at Bluffton, Indiana.

The Commission having heard the above case on the 5th day of September, 1911, made the following order:

The Commission having investigated the above entitled case, and it appearing that the Toledo, St. Louis and Western Railroad Company charge a road rate of eight dollars and seventy-five cents (\$8.75) for switching cars loaded with logs, and ten dollars (\$10) for switching cars loaded with bolts from the connection of said company with the Bluffton, Marion and Eastern Traction Company to the yards of petitioners to a track known as the Buttertub switch, the distance from said connection to switch track being about one mile, and it appearing to the Commission that this is a switching service, the entire haul being within the yard limits of respondents, upon consideration—

It is Ordered, That on and after the seventh (7th) day of October, 1911, respondents shall cease and desist from making said charges for switching services.

It Is Further Ordered, That on and after the seventh (7th) day of October, 1911, and for five (5) years thereafter, respondents shall charge for said service the sum of three dollars (\$3) for each car, without reference to the loading of said cars and without reference to the size or weight or contents of the same.

It Is Further Ordered, That the Secretary mail a copy of this order to petitioner and to respondent.

No. 538. Bedford Industrial Association vs. C., I. & L. Ry. and C., T. H. & S. E. Ry. Cos.

The petitioner alleged that the respondent companies prior to the petition maintained a 50-cent rate on coal to city of Bedford from what is known as the Linton District; that in March 1911, said companies filed tariffs increasing said rate to 55 cents per ton, and further alleging that such rate should not be in excess of 50 cents per ton, and that the 55-cent rate is burdensome and oppressive. Evidence in the case has been heard and the case is waiting argument by counsel, which was agreed to be submitted by means of briefs. Cause still pending.

No. 539. Indiana Manufacturers & Shippers' Association vs. C. & O. R. R. Co. and Illinois Central Railroad Company.

This was a petition praying that the Commission's rates on fertilizers be established on the Illinois Central and C. & O. R. R. Co's. lines. Before the case was tried, respondents advised that they had put in said rates, and this being satisfactory to the petitioners, case was dismissed.

No. 540. Chicago, South Bend and Northern Indiana Traction Company vs. Pere Marquette Railroad Company. Application of the Traction Company to Construct and Maintain Gate at Crossing of the Lines of Said Companies.

On the 5th day of September, 1911, the following order was made in this case:

ORDER.

Comes now the Chicago, South Bend and Northern Indiana Railway Company and files its application for a right to maintain a gate at the crossing of its line with the siding of the Pere Marquette Railroad leading to an ice-house at Pine Lake, this State; and the Commission, finding that said siding is not parallel with the main line of said Pere Marquette Railroad, and that there is but one movement a day over said siding by said Pere Marquette Railroad Company, and that a gate at said crossing, as shown by Exhibit "A" filed herewith and at the point of crossing as shown by Exhibit "B" filed with the application herein, will be sufficient protection for said crossing, orders that said traction company be authorized to maintain a gate at said crossing, and the expense of constructing said gate and the maintenance thereof shall be borne by said traction company; and when said gate is installed said traction company is authorized to run said crossing without stopping when said crossing is shown to be clear for said road by the gate so constructed.

No. 541. C., S. B. & N. I. Tr. Co. vs. L. S. & M. S. Ry. Co. Application of Traction Company to Construct Gate at the Crossing of its Line With Said Steam Railroad Company Over an Industrial Track Immediately West of South Bend, Indiana.

On September 5, 1911, the following order was made:

ORDER.

Comes now the Chicago, South Bend and Northern Indiana Railway Company and makes application to the Commission for power to construct and maintain a gate as shown on blue print marked Exhibit "A" filed herein, at the crossing of its line over the siding known as Winkler's siding, from the Lake Shore and Michigan Southern Railway, immediately west of South Bend; and the Commission, being fully advised in the premises, grants said application and orders that the said traction company be authorized to maintain a gate at said crossing, and when said gate is in operation that said crossing may be run without stopping.

No. 542. C. & O. Ry. Co. vs. C., C., C. & St. L. Ry. Co. Application to Install Gate Over Industrial Track.

In this case on September 6, 1911, the following final order was made:

In the above matter, petitioners both uniting in said petition and showing to the Commission that the running of said Industrial Track, protected as hereinafter set out, would be safe, upon consideration—

It Is Ordered, That said companies are hereby permitted to install and maintain a gate, provided with a red light, over and across the spur track on Industrial Track leading from the main line of the Cleveland, Cincinnati, Chicago and St. Louis Railway to Indiana Soldiers' Home, at and near the city of Marion, Indiana, where said Chesapeake and Ohio Railway crosses said spur on said Industrial Track; said gate to be so placed and maintained as to be normally across the Cleveland, Cincinnati, Chicago and St. Louis Railway track, and to be protected manually by train crews, and so arranged that the trains on the Chesapeake and Ohio Railway can be and are hereby permitted to operate over said crossing without coming to a full stop.

It Is Further Ordered, That a copy of this order shall be mailed by the Secretary of the Railroad Commission to both of said petitioners.

No. 543. In The Matter of Increased Rates on Grain and Grain Products From Points on the G. R. & I. Ry. to Jeffersonville and Madison and New Albany.

On September 8, 1911, said party's Supplement No. 1 to I. R. C. No. 278 was suspended by order of the Commission. After

wards, came before the Commission, E. C. Leavenworth, General Freight Agent of the G. R. & I. Ry. Co., and showed to it that so far as stations in this State were concerned, said supplement was based on a clerical error, and that therefore permission was requested to withdraw said tariffs and re-establish the old rates. Permission was granted, old rates re-established, and this case dismissed.

No. 544. Railroad Commission of Indiana vs. Grand Trunk Railway System. Inquiry into Dismissal of B. R. Tucker, Agent of Valparaiso, Indiana.

In the above case complaint was made by B. R. Tucker, operator at Valparaiso, that he had been discharged from the services of the company on account of giving information to our Block Signal Inspector. This matter was investigated by the Commission, and it was ascertained that Mr. Tucker had actually resigned from the services of the company by telegraph or letter. For this reason the Commission could proceed no further in this case. In order that the attitude of the Commission in such cases may be fully understood, we add to this published report a copy of a letter written by its Chairman to the Acting Superintendent of the Grand Trunk Railway System. It is proper to say that after this letter was written, Mr. Cunningham, said superintendent, appeared before the Commission, and gave evidence concerning this matter, and stated that he had no desire nor intention to evade or disregard requests of the Commission to come before it and explain this matter. The letter is as follows:

September 18, 1911.

File 544.

Mr. C. S. Cunningham, Acting Superintendent, Grand Trunk Railway System, Detroit, Mich.:

Dear Sir—I have your letter of the 15th with reference to the discharge of B. R. Tucker on account of giving information to our Block Signal Inspector.

The information which reaches this Commission that you discharged Tucker for answering questions propounded to him by our inspector is so positive that we are unwilling to pass it over simply on the statement in your letter, that Tucker was not discharged for this cause.

This Commission regards discipline as being so absolutely necessary to the safe operation of railroads that up to this time it has never demanded either the discharge or the reinstatement of any man by any railroad company. We have regarded the employment and the discharge of men as a prerogative of the management. But in a case like this, where, according to the information we have, and which we regard to be reliable,

the man was instantly discharged for doing his legal duty, we are of the opinion that our duties to the State and to the public demand that we shall take any possible steps to prevent such an outrage. In doing this we took it up with you, the person alleged to be the offender against the laws of this State. We asked you to come before us personally and show by your own word under oath, and by the testimony of any other person you might bring, whether or not these charges against you were true. You meet them with a simple letter in which you deny the charge.

Tomorrow we will hear this operator in person, and we will put him under oath. We have the statement of our inspector, which confirms what the operator has charged. You may come before us, or you may not, just as you choose to do, to enlighten us upon this subject. If you do not, or if you do, we will proceed to make a finding of the truth in the matter as best we can, and after doing that we will take such steps as the laws of this State justify to prevent occurrences of this kind, and if the laws are not sufficient, we will appeal to the next General Assembly, taking your case and your offense as an illustration, to give us power to prevent occurrences of this kind. Moreover, we propose, unless you see fit to give a charge of this gravity sufficient attention, to give it to the public press of this State and to forward these papers to the president of your company, in order that everybody may know, not only how you treat men (if you do treat them so), who respond to the questions of this Commission with reference to the safe operation of railroads in this State, but how you treat the summons of the Commission to come before it and explain so grave an offense.

Yours truly,

Chairman.

P. S.—Please use our file numbers in correspondence with this office.

No. 545. Cleveland, Cincinnati, Chicago & St. Louis Railway Company. Block Signals.

Case pending.

No. 546. Petition of the Chicago & Erie Railroad for Extension of Time Within Which to Equip Its Passenger Cars With Hand Brakes.

In the above case the following order was made:

In the above matter, it being shown to the Commission that the Interstate Commerce Commission has extended the time to change passenger train cars to comply with the standards prescribed by the Federal Act for three years, from July 1, 1911, and the Commission having had the same under careful consideration—

It Is Ordered, That the time to change passenger train cars operated by the Chicago and Erie Railroad Co., in the State of Indiana, to comply with the standards as to hand brakes prescribed by Chapter 169 of the Acts of 1911, is hereby extended for eighteen months from July 1, 1911.

It Is Further Ordered, That the Secretary shall transmit a copy of this order to the General Counsel of the Chicago and Erie Railroad Co.

No. 547. Petition of the Standard Oil Company for Permission to Maintain and Operate Existing Structures Without Legal Clearances.

Petition in this matter was filed on September 15, 1911, and was referred to the Inspection Department, with instructions to proceed to Whiting and carefully examine the clearances of the Standard Oil Company. On September 20th, the Chief Inspector filed his report and made certain suggestions for changes. The same was forwarded to the superintendent, requesting him to advise when his company had complied with the changes recommended, and that a proper order would be made by the Commission. These changes are now being made, and case is pending.

No. 548. Kilty Bros. et al. vs. C. & E. R. R. Co. Station Facilities at Bippus, Indiana.

In the above case the following opinion was rendered and order made as follows:

Wood, Chairman:

A petition filed by nearly 100 citizens praying that respondent be required to erect and maintain a suitable and adequate depot, and to keep same in condition as required by law, within the town of Bippus, Indiana, gives this Commission jurisdiction in the case.

The Acts of 1895, page 99, provide that railroad companies operating through cities or towns of 100 population, or more, shall provide and maintain suitable waiting rooms with separate water closets for men and women. The Railroad Commission Act of 1907 provides that railroad companies shall maintain adequate and suitable passenger depots, buildings and platforms and passageways to the adjacent street to be well lighted, depot to be well heated and kept in a sanitary condition and to be supplied with wholesome water, with closets for men and women. No limitations as to the number of inhabitants was made in this statute. The act of 1911, Chapter 238, Acts 1911, provides: "It shall be the duty of every steam railroad company to provide and maintain adequate depot, and depot buildings, and to keep such depots clean, well lighted, and well heated for the accommodation of the traveling public." Section 3 of this act requires the Railroad Commission to enforce it. These statutes must be construed together, and evince clearly the intention of the General Assembly that railroads operating in this State shall provide in cities and towns, complete depot accommodations for their patrons.

From the investigation made by a member of this Commission in this case, and the hearing of the case in the town of Bippus, we find that the Chicago and Atlantic Railroad Company (respondent being the successor of this corporation) commenced operation in 1882, and has ever since continued in operation through the town of Bippus. It appears that at this time a farmer owned the land about three-fourths of a mile east of Bippus, and gave the right of way through his farm on condition that the railroad company would erect a station depot adjoining his farm. The

station was therefore erected at this place and has since been maintained there to the great inconvenience of the people residing in the town of Bippus, three-fourths of a mile away. Without any further mention of this subject, any person who visits Bippus, and had occasion to use the depot, would come to the conclusion that the depot was located out in the country, it being at least one-half ($\frac{1}{2}$) mile from the last residence in the town of Bippus, and a farm and farm land intervening between the town and the depot. Another objection is, in order to get to the depot, part of the citizens of the town must cross the railroad twice, and all of the citizens must cross the railroad once. It seems to us, indeed, not too much to say that as matters now stand, the depot alleged to be at Bippus is not there at all, and is out in the country more for the accommodation of other persons, or of no person, than for the accommodation of the people of the town of Bippus.

The town of Bippus, according to the last census, has a population of 250. There are thirty miles of macadam roads connecting this town with the surrounding country, giving the business men of Bippus an opportunity to command business within a radius of at least five miles in each direction. The town is located seven miles from Andrews, its closest competitor. Bippus has a large tile works, large grain elevator, a creamery, two large department stores, a hardware store, a tin shop, a drug store, a hotel and restaurant, a boot and shoe store, a harness store, a blacksmith shop, a delivery and transfer stable, wagon shop, a telephone exchange numbering 600 or more patrons, a township high school building, three churches. The shipping and passenger receipts for the town of Bippus over the Chicago and Erie Railroad for three (3) months amounted to over \$7,650. Bippus has a State bank which was opened July 22, 1911, and has deposits of more than \$27,000. Passenger traffic in and out of Bippus is a fair average for a place of same size, and with recent changes in the schedule on the railroad it is believed that passenger travel will be much larger. A statement of the total business of the railroad station at Bippus for one year, rendered by the agent of the railroad, is as follows:

Statement of Business Done at Bippus for One Year, September, 1910, to September, 1911, Inclusive.

	Forwarded.	Received.	Total.
September, 1910	\$1,187 41	\$1,364 61	\$2,552 02
October, 1910	1,277 92	1,733 92	3,011 65
November, 1910	1,103 54	693 53	1,797 00
December, 1910	1,173 72	1,096 04	2,269 76
January, 1911	995 91	293 55	1,289 46
February, 1911	1,365 57	128 37	1,493 94
March, 1911	906 74	533 79	1,440 53
April, 1911	1,479 10	255 90	1,735 00
May, 1911	925 23	664 06	1,589 29
June, 1911	976 49	487 49	1,463 75
July, 1911	1,880 08	428 52	2,308 60
August, 1911	1,617 38	1,164 88	2,782 26
	<hr/>	<hr/>	<hr/>
	\$14,289 09	\$8,844 24	\$23,133 33

Efforts have been made to have the railroad company remove its station from its present location to some point where it really will afford depot accommodations to the town of Bippus. On one occasion, we are informed that an estimate was made of the entire cost of this removal, including the purchase of depot grounds, and the same was less than \$250. The citizens of the town raised enough money to remove the depot, and tendered it to the railroad company, but for some reason the project was abandoned and the depot was allowed to remain at its present impracticable, inconvenient and impossible location.

The defense made by the railroad company is that it will cost to remove the depot, together with the passing tracks located at this point, about \$8,000. From an ocular survey made by a member of the Commission we are of the opinion that it will not be necessary to expend anything like such a large amount of money. It is true the respondent claims that it is proposed to double track this road along this part of the line, and in order to maintain its block signal station it will be necessary to extend its passing tracks, entailing a large part of the expense referred to. The matter of double-tracking is, of course, indefinite as to whether or not it shall ever be done at all, or as to when it shall be done. The matter of expense for the block station will not be as great, we think, as is claimed by the company.

However this may be, the inhabitants of the town of Bippus, and the traveling public who visit that place, have a right under the laws of this State to adequate depot and depot buildings, to be well kept, well lighted, and well heated, and supplied with drinking water and with closets for men and women. There are no such accommodations at Bippus. The depot, such as it is, is entirely remote from the town of Bippus, inaccessible, and does not afford such station facilities as are required by the statutes of this State.

The Chicago and Erie Railroad Company, respondents, are accustomed to adopting the recommendations of this Commission. Their general counsel and their general officers have shown a disposition to do this, and to comply with the laws of the State with reference both to the convenience of the patron, and the safe operation of their lines. On this account we have given careful consideration to the reasons given for not providing depot accommodations at the town of Bippus, and after having done this, we are constrained to the conclusion that the respondent fails in this particular manner to comply with the laws of the State, or to satisfy the convenience and comforts of its patrons by maintaining depot accommodations at its present location. We shall therefore insist that adequate depot accommodations shall be maintained hereafter in the town of Bippus, and an order to this effect will be accordingly entered.

This matter having been carefully investigated, and a member of the Commission having visited the town of Bippus, carefully examining the location of the present depot, and having heard the representatives of the respondents at that place, upon consideration—

It Is Ordered, That respondents, within ninety (90) days from the date of this order, shall construct and maintain an adequate depot and depot buildings at the town of Bippus, the same to be located at or near the intersection of the north and south road passing through said town.

It Is Further Ordered, That respondents shall furnish to the Commission plans or blue prints showing the new location and the character of the depot building, and their statutory conveniences for said depot accommodations at the town of Bippus.

It Is Further Ordered, That the Secretary mail a copy of this order to complainants and to the superintendent of the respondents.

Afterwards the company filed with the Commission plans and blue prints for the depot at Bippus as ordered by the Commission, which plans were duly approved, and the construction of the depot is now progressing.

No. 549. Grand Trunk Railway Company vs. Lake Erie and Western Railroad Company. Interlocker at Stillwell.

This interlocker examined and approved, and case pending.

No. 550. H. H. Carson et al. vs. Evansville, Newburg & Suburban Railroad Company.

The petitioner alleged that the respondent company charges a rate of 15 cents from the city of Evansville to Garvin Station, a distance of 5.1 miles; that said charge is unjust and unreasonable, and praying that a ten-cent rate be established. Evidence in the case has been partially heard; cause pending for further evidence. Cause still pending.

No. 551. Grand Rapids and Indiana Railroad Company. Block System.

Case pending.

No. 552. Ohio Electric Railway Company. This was a proceeding Commenced to Enforce Compliance on Part of Said Company With the Recommendation of the Commission Requiring Separate Compartments for Motormen in Inter-urban Cars.

In November, 1911, the following order was made:

In the above matter, the Commission being advised that the Ohio Electric Railway Company will proceed to reconstruct its cars so as to provide separate cabs for motormen, on consideration, proceedings in this case are hereby abated.

No. 553. In the Matter of Prosecution of the Pennsylvania Railroad for Failing to Comply with Chapter 60 of the Acts of 1911, Requiring the Reconstruction of Cars so as to Afford Comfortable Caboose.

This case was brought under Chapter 60 of the Acts of 1911, the same being an act to regulate the size and construction of cabooses, and provides penalties. The Pennsylvania Railroad Company failing to reconstruct their cars in accordance with said act, the suit was brought to compel compliance with the act and is now pending.

No. 554. Thomas Collins vs. Indiana Union Traction Company.

The petitioner sought to require the respondent company to erect a shelter shed at a highway crossing on the line of the Indiana Union Traction Company, located about seven miles from Logansport. The matter was disposed of in accordance with the following report:

McCLURE, *Commissioner*:

This was a proceeding seeking to require the respondent company to construct a shelter shed at the Clingenpeel highway crossing of the respondent's line located about seven miles from Logansport, this State. The respondent declined to grant the relief asked in the petition. The case was set for hearing and the matter investigated.

The crossing in question is located on the Logansport Division of the Indiana Union Traction Interurban Railroad between Logansport and Walton. The number of passengers from this point will average twenty per week. The travel is mostly to Logansport and Walton. Several school children make use of the line from this stop in reaching school, principally at Logansport. The local trains are frequently late, particularly in bad weather, and passengers are thus exposed at times of the most inclement weather.

The parties at the conclusion of the hearing were advised to adjust, if possible, this matter, to the end that a shed be constructed as asked in the petition. There was an ineffectual attempt made by petitioner and respondent to dispose of the case by mutual concession, and the Commission so advised. Thereupon I took the subject up with the parties and an agreement was reached whereby the traction company will furnish and deliver all the material for said shed and the petitioner will construct the same. The parties entered into an agreement in writing to this effect, a copy of which is filed herewith, and I recommend that the petition be dismissed.

No. 555. W. H. Hershman et al. vs. Lake Erie & Western Railroad Company and P., C., C. & St. L. Ry. Co.

In this case, concerning the separation of a grade crossing of the highway and railroad, on December 5, 1911, a full hearing was had, and on December 6th, the following order was made:

ORDER.

Complaint having been made by about two hundred residents of the neighborhood affected by the dangerous condition of the level grade crossing known as the "Noblesville and Indianapolis Pike" with the Lake Erie and Western Railroad about one and one-half miles south of the court house of Noblesville, Indiana, and the Commission having made full investigation of the condition of said crossing through D. E. Matthews, one of its inspectors, and having heard the petitioners by their counsel, William V. Rooker and Earnest E. Cloe, county attorney, and by the board of county commissioners of said county of Hamilton, and by the county council of Hamilton County, by its president, Dr. A. D. Booth, and having heard the railroad company by its attorney, J. B. Cockrum, and its general superintendent, H. A. Boomer, and its chief engineer, W. G. Atwood, and the evidence showing that several persons have been killed by trains at said crossing, and showing further that said crossing is used by many trains and by many persons traveling in automobiles, rendering the grade crossing not only dangerous to travelers on the highway but to passengers on the trains, and the Commission being fully advised—

It Is Now Ordered, That said Lake Erie and Western Railroad Company shall separate the grade of its crossing with the Noblesville and Indianapolis pike by carrying said pike under said railroad, and shall within six (6) months from the date of this order submit to the Commission plans and specifications for the separation of said grade.

It Is Further Ordered, That said plans and specifications shall provide for a roadway conforming to the uniform width of said Noblesville and Indianapolis pike, with sufficient height to admit the passage of wagons loaded with hay and other farm products; the width and height to be shown in the blue prints and to be approved by the Commission; and

WHEREAS, It is reported to the Commission that the authorities of the county, and the petitioners and persons generally who use this subway are extremely desirous that the same, including the approaches, shall run straight through under the railroad, without a curve, or other obstruction to view;

It Is Further Ordered, That said railroad company, in submitting its plans, shall make the subway and its approaches thereto straight, if possible, or as nearly straight as it is possible to make it, this part of this order being made by the Commission after conference with the petitioners and with reference to the fact that petitioners will be willing to contribute more to the separation of this grade if the same is made straight so as to afford them the greatest possible convenience in the use of the highway.

It Is Further Ordered, That the Secretary shall forward a copy of this order to petitioners and respondents.

No. 556. C. G. Birket et al. vs. Lake Erie and Western Railroad Co.

This was a petition filed by C. G. Birket and other citizens of Castleton asking for increased train service at that point. The case was formally heard in the rooms of the Commission on December 20th, and the fact developed that the town was enjoying service, in the opinion of the Commission, adequate to their wants, and the petition was denied and dismissed.

No. 557. C. & O. R. R. Co. vs. Wabash Railroad Company. Interlocker at Peru, Indiana.

Case pending.

No. 558. E., J. & E. Ry. vs. Gary & Interurban Railway Company. Crossing Device at Sommers, Indiana.

This matter concerns a crossing arrangement at Sommers, Indiana. The petition for the crossing was approved on condition that not more than one car on the interurban should run the crossing at one time. If trains of cars are to run this crossing the Commission will require additional protection.

No. 559. John V. Bower and Clyde M. Bower vs. Cleveland, Cincinnati, Chicago and St. Louis Railway Company.

This case was a petition for a switch on respondent's road in Marion County, Indiana. The said case was fully heard by Commissioner Payne, and on November 1, 1911, the following order was made:

ORDER.

It Is Now Ordered, That respondents, within sixty days from the date of this order, shall construct upon its right of way of the St. Louis Division, a spur or switch track, the same being in Marion County, located near to and east of the bridge of respondent over Little Eagle Creek, and described particularly as follows:

The switch point for the proposed spur track to be located at a point 14 feet east of the east end of the concrete coping which projects above the ballast on said Little Eagle Creek bridge; thence to on a curve to the left with a C., C., C. & St. L. standard No. 10 turn-out with a radius approximately of 602 feet for a distance of 76 feet to a No. 10 frog located on the north rail of the westbound track; thence on a curve continuing to the left with a radius of 573.14 feet for such distance as will extend said switch track along and upon the right of way of respondent until it reaches the property line of complainant's property. Said spur track to be located on a level grade from the frog point to the end thereof.

It Is Further Ordered, That respondent will connect up this track, the same extending about 134 feet on its right of way with a switch or spur track, to be constructed by complainant about 48 feet in length on petitioner's property.

It Is Further Ordered, That the expense and cost of constructing these tracks shall be borne by complainants.

It Is Further Ordered, That a copy of this order shall be mailed by the Secretary to the complainants and respondents.

Afterwards there was a petition for re-hearing and modification of the original order. The petition was overruled.

No. 560. Louisville and Nashville Railroad Company vs. Evansville, Mt. Carmel and Northern Railway Company. Interlocker at Big Four Connection of the L. & N. at Evansville, Indiana.

In this case the L. & N. R. R. Co. was given authority to proceed with the construction, and case is pending.

No. 561. H. F. Showalter et al. vs. L. E. & W. R. R. Co,

The petitioner prayed an order of the Commission to require the respondent company to erect a depot and maintain an agent at the time at Fairfield, Howard County, Indiana. Cause was set for trial, and evidence taken, and by agreement the matter was continued to give the respondent company an opportunity to purchase additional ground for the purposes of locating a station at its signal tower at the town of Fairfield, and the case is still pending a report in reference thereto.

No. 562. E. A. Graves et al. vs. P., C., C. & St. L. Ry. Co. Station Facilities at Upland, Indiana.

Case pending.

No. 563. Marion Commercial Club vs. Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company, and the Chesapeake and Ohio Railway Company.

The petitioner herein prayed an order of the Commission to require the P., C., C. & St. L. Railway Company to interchange freight with the C. & O. Railway Company of Indiana at Marion, this State. The matter was heard and continued to enable counsel to file briefs in the case. At the time of the making of this report briefs had not been filed.

No. 564. Joe C. Burgess et al. vs. Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company.

This was a petition for a depot at the village of Deerfield, Randolph County, Indiana. A hearing was had and the following opinion was rendered and an order made in conformity therewith:

McCLURE, *Commissioner*:

The petitioners, thirty-six in number, complain that the respondent does not maintain an adequate depot or freight house at Deerfield, a station on its line.

Upon the hearing had in this case it was shown that Deerfield is located in Randolph County, this State, on the Logansport Division of the P., C., C. & St. L. Railroad. It is about three and one-half miles east of Ridgeville, the junction point of the G. R. & I. and the line of the respondent and ten miles west of Union City.

When the railroad was built the village of Deerfield was located about one-half mile north of the track and from the point where the station was located. Subsequently, business enterprises sprang up near the line of road and in proximity to the station. At this time the population of Deerfield, including the old and new portion thereof, is approximately two hundred.

There are three general stores, a grain elevator, livery stable, graded school and churches.

Live stock to the amount of thirty or forty cars a year would be shipped from this point if facilities for handling the same were provided. It is estimated that the freight charges arising from the business done at the elevator will amount to \$3,000 per annum; that there is an additional revenue of \$1,000 derived from the freight business to and from this point.

It was further shown that an average of one hundred and fifty passengers board the trains of respondent at this point each month. No data is at hand to show the revenue derived from this source, but it is largely short haul traffic.

The railroad company maintains a shed at Deerfield to accommodate passengers and store LCL freight. This structure is about twenty-four feet in length by eight feet in width. The service rendered by the company in delivering LCL freight is very unsatisfactory. Merchants find it necessary to be present when shipments arrive in order to secure the same from the weather and prevent loss and damage in other ways. Much complaint was developed on account of loss of freight, as no one is present to check waybills, and conductors check their own bills. Much of the freight intended for Deerfield is consigned to the owners at Ridgeville, and the same is transported thence to destination by wagon.

In 1866, 2.84 acres of land were conveyed to the Union and Logansport Railroad Company and its assigns by one Fitzpatrick and Miller of Deerfield, conditioned that the railroad company "shall locate and maintain a depot on the land herein conveyed," or within short stipulated distance from it.

There was a depot with an agent in charge maintained at this point for many years and until the depot building was burned, several years ago. The conveyances above mentioned were accepted by the grantee and the land used as a depot site. After the depot was so destroyed the company constructed the shed heretofore referred to and have not since maintained a depot or agent at this point and do not use the land conveyed by Fitzpatrick and Miller for any purpose. No effort has been made by the company to reconvey the same, nor has any one occupied or held possession thereof except the railroad company since the conveyance by the grantors, Fitzpatrick and Miller, as hereinbefore mentioned.

The conveyance of this land under the circumstances and the subsequent failure of the company to comply with the conditions contained in the deeds would perhaps create a liability against the company in favor of the grantors.

Louisville, New Albany & Chicago Ry. Co. v. Sumner, 106 Ind. 55;

Louisville, New Albany & Chicago Ry. Co. v. Moore, 106 Ind. 600.

However, the fact that a depot was maintained at this point for a number of years and the company accepted deeds of conveyance of real estate upon which to construct depot buildings is worthy of consideration in determining the question of the reasonable necessity therefor at this time, particularly so, inasmuch as the business of the company at this point has increased instead of diminished.

There is an agricultural district, of which Deerfield is the trading point. Live stock, hay, grain and tobacco is produced in this district in paying quantities, and could be shipped from Deerfield more conveniently than elsewhere.

The company is required to make reasonable provision for the accommodation of the public in the way of depot facilities to accommodate its passenger and freight traffic. To do so would not require the expenditure of a large sum of money. It does not at this time furnish depot facilities adequate to properly meet the demands of the public at Deerfield.

The company will be required to construct a depot with adequate waiting and freight rooms and office, and file with the Commission for its approval blue prints of plans for the same on or before January 10, 1912, and an order to that effect will be entered.

ORDER.

The Commission having investigated the above entitled case, and being sufficiently advised in the premises, finds that the respondent company should construct and maintain a suitable and adequate passenger and freight station at Deerfield, this State; wherefore,

It Is Ordered, That the respondent railroad company construct and maintain a passenger and freight station at Deerfield, Indiana, on the line of its railroad and that said company is hereby ordered to file with the Railroad Commission of Indiana, on or before the fifteenth day of January, 1912, a blue print of the plans for the construction of said depot for the approval of said Commission, and also specifications covering the construction thereof, and

It Is Further Ordered, That said depot building shall be constructed and ready for occupation by March 20, 1912.

No. 565. Marshall Pugh et al. vs. C., H. & D. Ry. Co.

This is a petition to require the respondent railroad company to construct an overway crossing for the highway which crosses the line of respondent's road, which highway is located on the section line dividing Sections 34 and 35 in Township 16 North, Range 2 East in Marion County, Indiana, and known as Walnut Ridge Road leading to the Indiana Girls' School. A letter addressed to the superintendent of the company has received no response, and summons has been issued, and cause set for hearing.

No. 566. Chicago, Terre Haute and Southeastern R. R. Co. vs. Indianapolis and Louisville Railroad Company.

In this case on October 25, 1911, the following order was made:

The above matter refers to a crossing agreement entered into by the Chicago, Terre Haute and Southeastern R. R. Co. and the Indianapolis and Louisville R. R. Co., in Greene County, Indiana.

The conditions are set out in the copy of the agreement furnished the Commission and signed by the presidents of the two lines concerned.

Upon consideration, it is ordered that the method of crossing as submitted to the Commission is approved.

No. 567. City of Rushville. Petition to Construct Power Transmission Wires Over the Tracks of the C., H. & D. R. R. on Fourth Street in Said City, and the L. E. & W. and C., C., C. & St. L. R. R. on Fifth Street in Said City.

In this case on October 28, 1911, the following order was made:

WHEREAS, The city of Rushville, through its proper officers, has petitioned the Railroad Commission to authorize it to construct transmission power wires over the railroad tracks of the C., H. & D., the L. E. & W. and the C., C., C. & St. L. railways in Fourth and Fifth streets in said city, and the Commission being sufficiently advised in the premises, orders and directs that said city of Rushville be and is hereby empowered to construct in said city of Rushville where said tracks of the C., H. & D. Railroad in said city of Rushville where said tracks are in Fourth Street at the intersection of said street with Arthur Street, and to construct said transmission power wires over the tracks of the C., C., C. & St. L. and L. E. & W. railways where said tracks cross Fifth Street in said city.

And It Is Further Ordered, That said wires shall be suspended by means of white cedar poles, which shall have a diameter of not less than twelve inches at the surface of the ground nor less than six inches at the top, and shall have a length of not less than forty-five (45) feet; that the same shall be encased under ground in cement to a depth of not less than six feet; that said poles shall be equipped with double cross arms 4 x 4

inches, securely fastened to said poles by means of machine bolts passing entirely through said poles and cross arms and securely braced; said wires to be fastened to Western Union insulators, which shall be securely attached to said cross arms. Said wires shall be so adjusted as to be not less than thirty-seven (37) feet above the top of the rails at said railroad crossings, and at each crossing said span shall not exceed sixty-six (66) feet, and No. 6 copper wire shall be used at the point of crossing.

No. 568. Pennsylvania Company vs. C., I. & L. Ry. Co. Interlocker at Maynard, Indiana.

October 18th, petition and blue prints filed, referred to consulting engineer, examined October 29th. Engineer made report; on same day the Commission approved the report of the consulting engineer, and case pending.

No. 569. Ex parte Indiana Manufacturing Company. Insufficient Clearances.

In this case on November 21, the following opinion was rendered and order made:

McCURE, Commissioner:

The petitioner in this case prayed an order of the Commission permitting the Indiana Manufacturing Company to use its coal track without providing the statutory overhead clearance. After the filing of the petition I directed an inspection of the track in question, and particularly the clearances in connection therewith. It was ascertained by report made by Inspector Zink that the overhead clearance is eighteen feet above the rail, and lateral clearances are seven feet, which brings this feature within the statute. The track in question is but fifty-eight feet in length and only one car can be accommodated on the track at one time. The president of the company advised the inspector that when the car was placed upon the track for unloading it would be unloaded before it was uncoupled from the engine and immediately removed and that walks would be placed beside the track in order that no danger would menace the yard men in performing their duties in connection with the switching in and out on this track.

In view of the fact that only coal cars are placed upon this track and that the lateral clearances are adequate, it is recommended that the prayer of the petition be denied and an order entered to that effect, but that the order carry with it a proviso that the Commission will not enter suit to recover penalty in the event that the company does not provide the statutory overhead clearance in this case.

ORDER.

WHEREAS, The petitioner has presented a petition to be permitted to use the coal track serving the Indiana Manufacturing Company at Peru, Indiana, without providing the statutory overhead clearance; and

WHEREAS, It appears that said track is only fifty-eight feet in length, and the overhead clearance is eighteen feet from the rail and the lateral clearances are seven feet from center; wherefore

It Is Ordered, That the prayer of the petition be denied and the right to use said track without providing the statutory overhead clearance, i. e., twenty-one feet, is refused.

It Is Further Ordered, That upon failure of the petitioner to provide the statutory overhead clearance at the side-track in question the Commission will not institute any proceeding to collect penalties on account of such neglect or refusal.

No. 570. Ex parte Bedford Light, Heat and Power Co.

The petitioner filed petition with the Commission requesting to be permitted to maintain the sidetrack used to receive its coal cars loaded with coal for said plant without observing the statutory clearance of seven feet from center of the track. Matter has been referred to the chief inspector of the Commission to inspect the premises, and advise as to the advisability of granting the petition. Matter still pending.

No. 571. A. C. Smith et al. vs. Vandalia Railroad Company and C., I. & L. Ry. Co.

Petition filed alleging unreasonable joint rates on coal from points on Vandalia Railroad to stations on C., I. & L. Ry. between Indianapolis and Frankfort. The matter was heard on November 14th by Commissioners Wood and Payne, and on November 15th the following order was made:

In this case petitioners and respondents having been heard by witnesses and by their counsel, and careful investigation having been made, and the Commission being advised, upon consideration;

It Is Ordered, That on and after the first day of December, 1911, respondents cease and desist from charging the rate of 95 cents a ton on coal from the coal fields known as the Linton District to the towns of Sheridan, Kirklin, Broad Ripple, Carmel and Westfield, situated on the line of respondent, Chicago, Indianapolis and Louisville Railway Company.

It Is Further Ordered, That on or before the first day of December, 1911, respondents shall put in, publish, and make and charge a rate of 75 cents a ton on bituminous coal in carloads from the coal fields known as the Linton District to the towns of Broad Ripple, Carmel and Westfield, and 80 cents a ton from said district to the towns of Sheridan and Kirklin, on the line of respondent, said Chicago, Indianapolis and Louisville Railway Company, and shall continue to charge said rate for five years from the first day of December, 1911.

It Is Further Ordered, That the Secretary shall mail a copy of this order to petitioners and respondents.

No. 572. Henry C. Silver vs. C., B. & C. Railroad Company and John C. Curtis, Receiver.

The petitioner in this case sought an order of the Commission to require the C., B. & C. Railroad Co. and its receiver to permit him to use the company's siding and switch at Simpson, Ind., for the purpose of loading grain and hay and to deliver to him freight in earload lots. A hearing was had and the following opinion and order were entered therein:

McCLURE, *Commissioner*:

The petitioner alleges that he is a resident of Huntington County, Indiana, engaged in buying and selling grain, hay and other farm products, and coal; that he acquired a tract of one-half ($\frac{1}{2}$) acre of land adjoining the right of way of respondent company at a station on its railroad called Simpson, located in said county and State; that the respondent railroad company is engaged in the business of a common carrier and has at said station of Simpson, side-tracks and switches for the purpose of loading and unloading freight; that said company and its receiver are now refusing to permit the petitioner to enter the right of way of said railroad company for the purpose of unloading and loading cars, and has entered into a contract leasing to the firm of Weber & Purviance the exclusive use of the right of way of said company along and in front of the lands of the petitioner, and have conspired with said firm to hinder and prevent petitioner from engaging in his said business; that said firm has been granted the right to construct a fence between the right of way and petitioner's said lands and the same is constructed, thus preventing the petitioner from engaging in said business on his said premises by denying access to respondent's siding and switches. Prayer that respondents open the right of way and permit petitioner to have the rights of a shipper at said station in the conduct of his said business.

The respondents answer denying the charge of conspiracy, and that prior to the purchase of said real estate by the petitioner as alleged in his petition herein, the firm of Weber & Purviance had leased the right of way adjoining the said land of Silver for the purpose of conducting their business of buying and selling grain, hay and coal.

The evidence discloses substantially the following state of facts: Simpson is a stop of the C., B. & C. R. R. at a highway crossing in Huntington County about four miles east of the city of Huntington. A small store, the grain elevator of Weber & Purviance and a tile factory constitute the business enterprises located at this point. In July, 1907, William J. and Samuel F. Tribolet conveyed a strip of land sixty-six (66) feet wide, immediately adjoining the south side of the right of way, across the west half of the northwest quarter ($\frac{1}{4}$) of section twenty-eight (28) township twenty-eight (28) north of range ten (10) east in Huntington County, Indiana, for right of way of the C., B. & C. R. R., said conveyance was upon the condition that the said railroad company would maintain a private crossing over the railroad, and also a siding of sufficient length to accommodate two cars for the accommodation of the said

grantors, who were and are engaged in the manufacture, sale and shipment of clay drain tile.

The tile factory of said Tribolets being located north of the right of ways of both the C., B. & C. R. R. and the C. & E. R. R.

On the 22d day of April, the firm of Weber & Purviance acquired by purchase a tract of land four (4) rods wide, north and south, and twenty (20) rods long east and west, located in the southeast angle of the intersection of the right of way of the C., B. & C. R. R. and the Simpson highway. Weber & Purviance constructed on the said tract a grain elevator with a capacity of 8,000 bushels. On the 17th day of April, 1909, said firm of Weber & Purviance, and the said C., B. & C. Railroad Company, by its receiver, entered into an agreement wherein it was stipulated that in consideration of the construction of a grain elevator by them on said tract of land so purchased as aforesaid, said railroad company by its receiver would construct and maintain suitable and necessary sidings and loading tracks to properly accommodate the business of said firm. The receiver reserved the right to construct and maintain stock-pens for general use on the siding so to be constructed. Afterwards on April 28, 1909, said parties entered into an additional contract whereby said firm of Weber & Purviance became the lessees of all the right of way of the said railroad company south of its tracks and east of the Simpson highway for a distance of forty (40) rods. That said firm constructed an office, installed scales, and made other improvements at an expense of about seven thousand (\$7,000) dollars, including the building of said elevator. The company installed a siding east of the Simpson highway on the south side of the track, first for the use of the said Tribolets, and later extended the same siding westward, and in front of said tract purchased by the firm of Weber & Purviance to accommodate the business of said firm. The siding is three hundred and ninety-six (396) feet in length from the fouling point with the main line, and the extension made for the use of Weber & Purviance is wholly in front of the tract of land owned by said firm.

The petitioner in July, 1911, became the purchaser of a tract of four (4) rods wide and twelve (12) rods long containing about one-half ($\frac{1}{2}$) acre and lying immediately east of said tract belonging to said firm of Weber & Purviance and adjoining the right of way of said railroad. Said petitioner also owns a strip sixteen (16) feet wide running from said Simpson highway to said tract, intended to be used as a driveway to and from said tract belonging to petitioner.

Immediately west of the clearance point the said Tribolets have the use of eighty (80) feet on said siding for the purpose of handling their cars for loading and unloading, and this portion of said switch was originally constructed in compliance with their agreement with the railroad company when they conveyed the said sixty-six (66) foot strip heretofore described for right of way purposes. No stock-pens have been constructed at Simpson. Shipments in carload lots have been made from this point, the petitioner having made shipments of hay at various times from this place, and other miscellaneous carload shipments have been made from Simpson. The business done by the Tribolets in shipping tile is not extensive.

Weber & Purviance have handled approximately one hundred (100) carloads of freight per year, out, during the past two years. The petitioner would be able in his opinion, to handle 50 to 100 carloads per year. The territory that would be reached by the market at Simpson is somewhat limited. Four grain elevators are located at the city of Huntington a few miles to the west; two elevators at Markle four and one-half ($4\frac{1}{2}$) miles to the east, and Mardenis, located about 5 miles north on the Wabash Railroad, is also a grain market and supplied with elevator facilities. The petitioner is desirous of building an elevator on his land at Simpson and to engage in the grain, hay and coal business, and for this purpose desires access to the siding of the railroad to load and unload cars.

The petitioner can make use of the siding at Simpson without disturbance to the business of Weber & Purviance or the Tribolets.

Under the facts set out above, we think it is clear that the siding in question is a public track made use of by the company to handle all shipments in carload lots offered at this place, and the company would have the right to install stock pens on this siding for general use. The firms of Weber & Purviance and Tribolets have a right to the use of this track to handle their business without delay or hindrance, but to this extent only is the siding subject to private business that is paramount to public use.

The exclusive use of the right of way for a distance of forty (40) rods or more than the length of the siding in question by Weber & Purviance is not, as it appears to the Commission, necessary to properly take care of their business. They bought land for this purpose and constructed an elevator thereon with a capacity of 8,000 bushels. They ship about 100 cars per year, not more than two cars per week. This strip would be 660 feet in length, about two city blocks. The need of more land upon which to erect a corn-crib was shown to be unnecessary. The fencing on the right of way was evidently with intention to prevent access to the siding by other persons. The limited amount of business at this point in grain, hay, and coal might, we think, cause a prudent person to hesitate before engaging therein, particularly so when it calls for the investment of a substantial sum of money in order to successfully meet competition. However, this is a question only for the petitioner or any other person of like mind.

The railroad company or its receiver cannot be heard to say that a certain line of business on the road is adequately served and facilities will not be furnished others desiring to engage therein. Section 13 of the act of March 9, 1907, commonly known as "The Commission Act," defines certain unjust discriminations. Subdivision (a) is applicable here and is as follows: "(a) It shall be unjust discrimination for any such railroad company to make or give any undue or unreasonable preference or advantage to any particular person, firm, corporation or locality, in connection with the transportation of any persons or property, or to subject any particular kind of traffic or any particular person, place or locality, to any undue or unreasonable prejudice, delay or disadvantage in any respect whatsoever."

It seems to be clear that the contract leasing Weber & Purviance the right of way for a distance of forty (40) rods was entered into by the

receiver with a view of protecting the firm of Weber & Purviance as against the competition of any other grain merchant at that point by giving that firm an opportunity to block access to the siding by any other shipper. This cannot be lawfully done by the company or its receiver. Whenever a railroad company installs a switch or siding for the use of the public, every one complying with the reasonable rules of the company will be entitled to the use of such siding to load and unload cars. The petitioner is entitled to such use of said siding, but the right of Weber & Purviance and the Tribolets to the use of said siding shall not be impaired, except said firm of Weber & Purviance shall exercise no rights hostile to petitioner under said lease of April 28, 1909.

And an order to that effect will be entered.

ORDER.

The Railroad Commission of Indiana, having heard the evidence in the above entitled case, and being fully advised in the premises, does now order and direct that said respondent railroad company, and its receiver, permit and allow the petitioner herein to enter upon the right of way of said railroad company adjacent to petitioner's real estate, as described in the petition herein, for the purpose of loading grain, hay and other farm products for shipment from said point, and for the purpose of unloading inbound shipments to petitioner.

Nothing in this order shall be construed to exclude the firm of Weber & Purviance, or its successors, or Tribolet Brothers, or their successors, from the use of said track in loading or unloading their shipments to and from said point. It is further ordered that this order shall be in force and effect for a period of five years.

Ordered By the Railroad Commission of Indiana.

No. 573. A. L. Aldridge et al. vs. C., I. & W. Ry. Co. (C., H. & D. Ry.) Station Facilities at Rushville.

This case was heard by Commissioner McClure at the Court-house at Rushville on November 4, 1911, and the following opinion was rendered and order made:

McCLURE, *Commissioner*:

The petitioners complain that the respondent company does not maintain adequate and proper depot facilities for its passenger traffic at Rushville, Indiana.

The complaint was investigated by the Commission by the inspection of the depot building in question, and hearing evidence at the city of Rushville, Indiana, in reference thereto. The passenger station of respondent in said city is a one story frame building erected about 50 years ago, and is quite small. There is but one waiting-room, about 15 feet by 18 feet interior dimensions; a telegraph and ticket office 10½ feet by 18 feet; a baggage-room 9 feet by 12 feet; closets for men and women have been added within recent years to the building and are accessible from the general waiting-room only and are in nowise protected or screened save

by the doors opening to the same. There is a small shed to the east of the building, and also between the main building and the baggage-room. The waiting-room is provided with partitioned benches sufficient to accommodate 16 persons. The room will accommodate about 25 additional persons, standing, or about 40 people would fill the room to the extent of its capacity without extreme crowding.

Rushville is a prosperous city of about 5,000 population; five railroads, including one electric line, supply its transportation facilities. It has a fine system of graded schools with a number of commodious buildings, churches, numerous storehouses, business and manufacturing enterprises. The surrounding country is fertile in agricultural lands and is densely populated.

The evidence developed the fact that the passenger business yields the respondent \$18,000 to \$20,000 per year, and its freight business amounts to from \$40,000 to \$50,000 per year.

The Commission in a hearing involving the same subject some four years ago found that the estimated cost of this depot was \$800, and that about \$500 in repairs were added in 1906, making the total expenditure for construction and repair about \$1,300. It was ascertained at the hearing that the depot as originally constructed contained separate waiting-rooms for men and women; that by reason of a collision occurring at a point where the depot is located, the west end, including one waiting-room, was destroyed, and when the building was repaired it was reduced in size and only one waiting-room provided. Since the construction and operation of the I. & C. traction line, paralleling the C., H. & D. R. R. from Connersville to Indianapolis, the local travel has been largely diverted to the traction line.

However, there are four trains each way, per day, over respondent's line, all but one of which stop at Rushville for passengers and express. The average daily ticket sales of the respondent at Rushville is between forty and fifty. This does not take into account passengers traveling on return tickets, nor those paying their fare upon the trains. In the summer months excursions are run as often as once a week to Indianapolis and Cincinnati, and frequently public meetings and special occasions increase the traffic much above the average on such days. Frequently the waiting-room at this station is overcrowded and inadequate to accommodate the traveling public that legitimately has a right to use the station in connection with the movement of respondent's passenger trains. Frequently the air of the waiting-room is foul with tobacco smoke, rendering it an unfit place to accommodate women and children who go there to become passengers of the road.

The Legislature in 1889 passed an act requiring railroad companies to maintain suitable waiting-rooms in all cities and towns of the State having a population of 250. In 1895 an act was passed which, by implication, repealed the act of 1889 (Acts 1895, page 99), requiring all railroad companies operating lines through cities and towns of 100 population or more to provide and maintain suitable waiting-rooms, together with separate water-closets for men and women for the convenience of the traveling public, and that the same shall be kept open for a period of one hour preceding the arrival of all passenger trains that are allowed by

schedule or flagging to stop at all stations. Subdivision "B" of the act of March, 1907, enlarges the act of 1895 by providing that whenever the Railroad Commission shall secure reliable information, or complaint shall have been made, or because of reports made by its inspectors shall have reason to believe that any carrier as now required by law does not maintain adequate and suitable passenger depot buildings and platforms, said depots with the passage-way to the adjacent street to be well lighted, to be kept well heated and in approved sanitary condition, supplied with wholesome water and closets for men and women and to be kept open at least one hour before, and 15 minutes after the arrival of each passenger train stopping at said station.

By the act of March 6, 1911 (Acts 1911, page 603), it is provided in Section 1 thereof that it shall be the duty of every steam railroad company to provide and maintain adequate depots and depot buildings and to keep such depots clean, well lighted and warm for the accommodation of the traveling public. Section 3 of the act of 1911 makes it the duty of the Railroad Commission to enforce Section 1 thereof, and upon the filing of a petition, signed by not less than 25 patrons of the railroad at such station, setting forth that the depot facilities are not in conformity with the provisions of Section 1 of the act, it becomes the duty of the Commission to make such investigation as may become necessary, and if the Commission shall determine that the depot facilities are not suitable, and not in conformity with the act, it shall direct the railroad company to provide such facilities as shall be in conformity with the provisions of the act. These statutory enactments should be construed together in determining the duties of the companies in respect to the maintenance of depot facilities along the line of the roads.

It is clear from the provisions of these statutes that it is incumbent upon the railroad companies to maintain depots of sufficient size to reasonably accommodate the traveling public making use of the carriers' trains for transportation, as well as those persons who have occasion to go to the station for the purpose of transacting business with the company's agents or to assist, or accompany passengers to stations or to meet them upon arrival of trains.

To maintain adequate depot facilities, including separate closets for men and women, implies that such facilities shall be so provided, and arranged that the same may be used with comfort and with due regard to the proprieties justly incident to a collection of persons composed of men, women and children. When the number using a depot at given times is great, the facilities require increase; when the number is quite small, the facilities may be quite simple and be adequate.

In this case we conclude from the investigation, a view of the building and premises set out in this report, that the respondent company does not provide a suitable and adequate depot with necessary waiting-rooms at Rushville, Indiana.

We further find that a depot should be provided at that point having separate waiting-rooms for men and women. It is directed that an order be entered directing the respondent to submit on or before the first day of January, 1912, suitable plans and specifications and blue prints for the construction of a depot at Rushville, Indiana, and that said plans, speci-

fications and blue prints provide for a building having the appointments herein specified and in other respects be adequate for depot purposes at said place.

The Commission having heard the evidence, and inspected the premises, and being sufficiently advised, finds that the depot building maintained by the respondent on its line at Rushville, Indiana, is insufficient and inadequate for the purposes of such building.

It Is Ordered, That said company construct a new and adequate depot building at such point, and said respondent shall submit to the Railroad Commission of Indiana, on or before the first day of January, 1912, plans, specifications and blue-prints for an adequate and sufficient depot building at said point having separate waiting-rooms for men and women and sufficient room for the accommodation of baggage; and that separate water-closets be provided for men and women, accessible from such separate waiting-rooms.

It Is Further Ordered, That after the approval of said plans and specifications said respondent company shall construct such proposed depot buildings not later than the fifteenth day of May, 1912.

No. 574. W. E. Havens et al. vs. Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company.

The petitioners sought an order of the Commission to require the respondent company to construct a depot on its line in the city of Rushville, Ind. The matter was referred to Commissioner McClure, who held an investigation in the city of Rushville, November 23, 1911. The following opinion and order were entered in the case:

McCLURE, *Commissioner*:

The petitioners allege they are residents of Rushville, Indiana; patrons of the respondent railroad company which operates a line of railway from Madison, Indiana, to Cambridge City, Indiana, through the city of Rushville for the carriage of freight and passengers, and that the station provided for the use of passengers, and used by the railroad company, is not provided with separate waiting-rooms for men and women, and there is but one room available for the use of the passengers and patrons; that the room is poorly ventilated and is unsanitary, and that said depot is inadequate for the needs of the traveling public and proper transaction of business with said railroad company at that point, and praying that an order be issued requiring the said company to erect at the said city of Rushville a depot sufficient to accommodate the business of the company at that point. On November 24, 1911, at the Court House in the city of Rushville, Indiana, an investigation was held inquiring into the matter as set forth in the petition. The respondent operates a line of railroad extending from Madison, Indiana, to Cambridge City, Indiana, that the travel accommodated by this line of railroad through Rushville is of a local nature extending as far south and west as Madison, and north and east to Cambridge City. The respondent operates two trains

each way a day over this line. The receipts from passenger traffic at Rushville are in round numbers \$600 per month, and the freight business about \$30,000 per annum.

Rushville is a city of 5,000 population. It is progressive in business, having a large mercantile trade; well supplied with stores, schoolhouses and churches. The country in the vicinity of Rushville is rich in agricultural lands, and is thickly populated. The depot building used by this company at this point is a brick building, approximately 36 x 50 feet. The south half of this building, including 15 feet off the entire west end thereof, is used as a freight depot. The waiting-room is 15 ft. 6 in. by 18 ft. 10 in. in dimensions. The ticket and telegraph office is at the east end of the building and is about 6 ft. by 18 ft. The waiting-room is provided with a seating capacity for about 16 people; closets are connected therewith, and are entered by unscreened doors leading from the waiting-room. The testimony shows at times the waiting-room is not sufficient to accommodate the people who are at the station awaiting the arrival of trains. The superintendent of this division of the road was present at the hearing and advised that the company had improvements to the station in contemplation. The station building is substantially built of brick, although constructed originally for the purpose of a roundhouse. The Commission is of the opinion that improvements could be made to increase the accommodations for passengers at this point and be adequate to the demands thereof. If the entire north half of the building were used as a passenger depot, having waiting-rooms for men and women (with the office located between the two), and with closets reached from each room, there would then be two waiting-rooms about $13\frac{1}{2}$ x 18 feet. The depot thus remodeled and improved would be sufficient to accommodate the needs of the traveling public at that point and it would be free from objections as to sanitation. A new building would add to the appearance of the city at that particular point, but the structure owned and used as a passenger station is too substantial and valuable to be condemned. The Commission is advised by the company that the changes suggested herein will be made if so required. The Commission will enter an order directing the company to submit to the Commission for its approval, plans for the changes herein suggested, and to make the changes to conform therewith by the 1st of March, 1912.

ORDER.

The Commission having heard the evidence in the above entitled case, and being well advised therein, orders and directs that the respondent company file with the Commission on or before January 15, 1912, blue print of plans and specifications for the altering and changing of its passenger station in the city of Rushville, Indiana; that said plans and specifications shall provide for separate waiting-rooms for men and women with closets attached to each room, and that the office of the agent for said company be located between said waiting-rooms and that the entire north half of said building be used for passenger depot purposes.

Upon application of the respondent company the order herein entered was modified to read as follows:

MODIFIED ORDER.

The Commission, having heard the evidence in the above entitled case and being well advised therein, modifies its order heretofore entered on the twenty-second day of December, 1911, so that the same shall read as follows:

The Commission now Orders and Directs that the respondent company, having filed its blue-print of plans and specifications for the altering and changing of its passenger station in the city of Rushville, Indiana, and said plans providing for separate waiting-rooms for men and women with closets attached to each room, and the office of the agent for said company being located at the east end of the station building, said plans are now approved and the Commission

Orders and Directs that the changes and improvements indicated by said plans shall be made and completed on or before February 15, 1912.

No. 575. Baltimore & Ohio Southwestern Railroad Company. Insufficient Clearances.

Case pending.

No. 576. Southern Railway Company. In the Matter of Box Car for Depot at Lamar, Indiana.

In the above case on the 14th day of November, 1911, the following order was made:

In the above matter the Commission being informed that there are less than 25 inhabitants at Lamar, Indiana, and that said citizens are satisfied with the said box car now provided for depot accommodations for said place; there is no agent maintained at said station and that the present accommodations are entirely adequate, upon consideration

It Is Ordered, That the time for using said box car for a waiting room at said station is hereby extended to January 1, 1913, or until further orders of this Commission.

It Is Further Ordered, That the Secretary mail a copy of this order to the general superintendent, and to the general counsel of the said Southern Railroad Company.

No. 577. C. W. Bauermeister & Co. et al. vs. C. & E. I. R. R. Co.

In this case on November 20, 1911, the Commission made an order suspending the effective date of certain items affecting switching in the city of Terre Haute, and set down the sixth day of December, 1911, as the time for a hearing as to the propriety of said items of certain tariffs so suspended. Afterwards the hearing was postponed and assigned to take place at Terre Haute on Friday, December 15, 1911; before the hearing took place the petitioners and respondent adjusted the controversy, and advised the

Railroad Commission that the same had been settled satisfactorily to all parties, and thereupon an order was made dismissing the case.

No. 578. The Chicago, Indianapolis and Louisville Railway Company vs. Indiana Union Traction Company.

The petitioner alleged that the tracks of the petitioner and respondent intersect each other at Carmel, Broad Ripple, and at the Millersville Pike, in Marion County, this State, that the petitioner is now laying ninety-pound rail: that the crossings at such intersections are constructed of seventy-five pound rail: that in view of the installation of an automatic signal system it is necessary to change the signals, and therefore the petitioner prays that an order be made requiring the installation of new crossings at the points in question. The matter was set down for hearing, and upon the appearance of the parties the matter was taken up by the Commission, and after a short conference it was agreed between the parties that the crossings in question should be renewed. The matter was disposed of by the following stipulations:

1st. That the respondent shall put in at its own expense crossings of ninety-pound rail at each of the three crossings named in the petition, and that this shall be done without delay.

2d. That the respondent shall change the derails at the Carmel crossing from split point to Wharton derails, and that this change shall be made without delay.

3d. That the respondent shall have as its own the crossings and derails so replaced by it.

4th. That the petitioner shall pay to said respondent the sum of four hundred and thirty dollars (\$430).

And the petition was dismissed.

No. 579. Frank E. Peterson et al. vs. L. S. & M. S. Ry. Co. Station Facilities at Porter, Indiana.

Case pending.

No. 580. J. F. Cameron vs. Wabash Railroad Company. Train Service at Hamilton, Indiana.

Case pending.

No. 581. Charles E. Barnhardt et al. vs. I. & C. Tr. Co. Overcrowded and Unsanitary Condition of Cars.

Case pending.

No. 582. Ex parte Pennsylvania Railroad Company. Shelter Shed at Kosciusko, Indiana.

In this case the following order was made:

WHEREAS, The Pennsylvania Railroad Company has submitted to the Railroad Commission of Indiana blue-prints of drawing of the proposed shelter shed and platform at Kosciusko, Indiana, and the Commission having inspected said blue-print of drawings and specifications for the construction of said shelter shed and platform, and being advised in the premises, now approves said plans and specifications for the construction of said shelter shed and platform.

No. 583. George B. Burnside et al. vs. B. & O. S. W. R. R. Co. Station Facilities at Vincennes, Indiana.

Case pending.

No. 584. J. M. McDowell et al. vs. Vandalia R. R. Co. Station Facilities at Vincennes, Indiana.

Case pending.

No. 585. J. M. McDowell et al. vs. C., C., C. & St. L. Ry. Co. Station Facilities at Vincennes, Indiana.

Case pending.

No. 586. J. M. McDowell et al. vs. C. & E. I. R. R. Co. Station Facilities at Vincennes, Indiana.

Case pending.

No. 587. Ex parte Connersville Wheel Works. Application to be Relieved of Making Legal Clearance.

The petitioners requested the Commission to be permitted to saw off the eaves of the roof of one of their buildings in order to make legal clearance. The case is pending.

No. 588. Woodburn Masson et al. vs. Indiana Union Traction Company.

The petitioners on their own behalf and for citizens residing on the Broad Ripple line of the Indiana Union Traction Company between the north line of Indianapolis and the south line of Broad Ripple, complained that the service furnished by the company between Broad Ripple and Indianapolis was inadequate and insufficient to comfortably carry the passengers who are compelled to use

the company's cars between said points, and especially between the hours of 7 a. m. and 9 a. m. and 4 p. m. and 7 p. m., further alleging that the steps are inconvenient by reason of being narrow and high from the ground and that the ventilation of the cars used on this line is inadequate and insufficient and that the company furnishes no electrical device on the cars on its said line in order that warning may be given to the motorman or conductor by passengers for the purpose of stopping the car at desired points. The matter was investigated by the Commission and a number of witnesses heard upon the issues involved in the petition. In a short time after the hearing, before the case was finally presented and submitted to the Commission for decision, the parties arrived at an adjustment of the causes of complaint and the petition was dismissed.

No. 589. Petition of Southern Railway Company to Use Box Car as a Temporary Depot.

The Southern Railway Co. petitioned the Commission for permission to use their box car for depot at Johnsbury, Ind., until they could get the lumber and rebuild the station at that point. The petition granted.

No. 590. Rates on Fertilizers.

Petition of the Indiana Manufacturers & Shippers' Association to require certain railroads to put in fertilizer rates heretofore made by the Commission for other lines. It appears from the petition that the Lake Erie and Western Railroad, the Chicago and Eastern Illinois Railroad, the Baltimore and Ohio Railroad, the Toledo, St. Louis and Western Railroad, the Cincinnati, Hamilton and Dayton Railroad and the Evansville and Terre Haute Railroad are lines which were not included in the order of the Commission in No. 41, fixing fertilizer rates in this State. The petition, as said above, seeks to extend the fertilizer rates fixed by the Commission for the other lines to these lines. The case is pending.

No. 591. Ex parte Anchor Stove and Range Company.

Application of the Anchor Stove and Range Company to be permitted to use switch in the petitioner's building without maintaining statutory overhead clearance. The following order was entered in the case, which disposed of the same:

The Commission being advised that the petitioner, the Anchor Stove and Range Co., of New Albany, Ind., has a siding from the C. I. & L.

Railway passing through its four-story building; that the clearance from the tracks to the floor of the second story of the building, immediately above, is 14 feet, four inches; that trainmen are not permitted to enter said building on cars moving over said siding, and that when cars are ready to be removed from the building they are removed by the employes of the petitioner; the Commission, being advised in the premises, denies the petition, but it will not institute any suit to collect penalties for failure to maintain the statutory clearance of 21 feet above the switch in question.

No. 592. Ex parte Hydro-Electric Light and Power Company.

Application of Hydro-Electric Light and Power Company for approval of its plans and specifications for the construction of transmission power wires over the tracks of the C., H. & D. R. R. at Connersville, Indiana. The Commission having examined the blue-prints and plans and specifications of petitioner's power wire over the tracks of the Cincinnati, Hamilton and Dayton Railway Company at Connersville, Ind., finds that the same are in conformity with the statute of March 6, 1911, and approves the same and authorizes the said company to construct its wires in conformity with its said plans and specifications.

No. 594. B. F. Drake et al. vs. P., C., C. & St. L. Ry. Co.

This is a petition for an order against the respondent requiring it to construct a depot at its stop at Lewis Creek on its Cambridge City branch. The matter was set for hearing and the Commission heard a number of witnesses as to the present train service, the passenger and freight traffic from said point and the character of depot service rendered by the company at that point. It appearing that the service was inadequate and that the superintendent of the company acknowledged that better facilities should be provided at this place for caring for passengers, it was agreed that Superintendent Kron of the company and a committee of citizens should meet and if possible decide upon the improvements that should be provided by the company at this point, and the case is thus pending.

No. 595. Paul Robertson vs. The Pullman Company.

This was a petition to fix the rates on Pullman Parlor Cars from LaFayette to Indianapolis. It appears that the former rate was 25 cents for each seat, which was raised by the Pullman Co. to 35 cents. The petition alleged that the rate was unreasonable and asked the Commission to fix the rate at 25 cents. The Com-

mission called before it the general passenger agent of the Pullman Company and indicated that in making an order in this case it would probably grant the prayer of the petition. Acting on this intimation and on the request of the Commission, the Pullman Company filed in satisfaction of the petition tariff, effective February 1, 1912, fixing the rate at 25 cents as prayed for in the petition, and thereupon the case was dismissed.

No. 596. J. B. Flint vs. St. Joe Valley Railway Company.

The petitioner filed a claim against the company for loss accruing on account of damage to freight. Matter is pending investigation.

No. 597. J. H. Klepfer et al. vs. C., C., C. & St. L. Railway Company.

The petitioners alleged that the crossing of the highway in the village of Oaklandon, Marion County, Ind., by the tracks of the respondent company is dangerous, and prayed that the Commission order that the same be protected by watchman. The matter was investigated, a number of witnesses of the village and vicinity testifying, and afterwards an order was issued requiring the company to maintain a flagman at this crossing between the hours of 7 a. m. and 6 p. m., and said respondent acquiesced in said order.

APPENDIX III.

Informal Proceedings.

INFORMAL PROCEEDINGS.

A. R. No. 557. Train Service at Pekin.

George M. Johnson vs. C., I. & L. Ry. Co. The Commission was advised on February 4th by the general manager of the C., I. & L. that train No. 5 would be stopped at Pekin to let off passengers for that point and to stop on flag for passengers for all points at which this train makes regular stops. An order was entered to this effect and the file closed.

A. R. No. 752. F. W. Samuels vs. Vandalia Railroad Co.

Mr. Samuels complained to the Commission that he was charged a 40-cent fare from Bridgeport to Indianapolis by a conductor on one of the company's trains, the distance being 9 miles. The matter was taken up with the company and it was found that the rule governing the conductor in such instances as this, Bridgeport having been abandoned as a passenger station, was to charge the passenger the rate from the first station back where passengers were taken, in this instance, Plainfield, to the point of destination plus the excess 10-cent fare for failing to have ticket. The regular rate from Plainfield to Indianapolis is 30 cents, which was charged Mr. Samuels in this instance, together with the 10-cent excess fare for failing to have a ticket. After consultation with the legal department of the railroad company, the rules of the company in force, being 22 and 23, were abrogated, and rule 22, reading as follows, substituted:

"22. Persons must be prevented, if possible, from boarding trains at non-scheduled points where tickets are not on sale. Any person boarding a train at any such place must be put off before the train starts, or if not discovered until after the train starts such person must be required to pay fare from the point at which the train is boarded to the next station at which the train is scheduled to stop at the rate of two cents per mile if intrastate, or the regular interstate fare from the first tariff station back from which there are interstate fares to the next station at which the train is scheduled to stop if it is beyond the State line; Provided, always, however, persons shall not be prevented from boarding trains at Bridgeport when stopping at that point to receive or discharge express matter."

The petitioner was advised and the case closed.

A. R. No. 753. Ex Parte Hornbrook-Price Co. Classification of Watering Troughs.

The Hornbrook-Price Company wrote the Commission advising that it was manufacturing watering troughs of different sizes with flaring ends, and that if the top strips and legs were removed the smaller would nest perfectly in the larger, and that according to Official Classification No. 34 the company in shipping would be entitled to have their shipments thus made in L. C. L. lots as second-class freight instead of a higher classification and a greater freight charge. The classification "KD" in sections nested, crated or boxed, second class, was interpreted by the railroad companies to mean that the troughs should be taken apart and the parts nested or crated separately and when arriving at destination these parts to be assembled. The Commission held a conference with the representatives of the Hornbrook-Price Company and the C. I. & L., C., H. & D., L. E. & W., P., C., C. & St. L., the Vandalia and C., C., C. & S. L. R. R. companies, and it was agreed that the Hornbrook-Price Company should make application to the Official Classification Committee of the C. F. A. territory for a modification of the rule governing the classification of watering troughs and tanks. The Hornbrook-Price Company was communicated with by the Commission, relative to this subject and it advised the Commission that after considering the subject further it did not consider the matter of sufficient importance to obtain the modification of the rule referred to to take any further steps in the matter and thanked the Commission for its efforts and courtesy in the matter, and the case was closed.

A. R. No. 766.

Case still pending.

A. R. No. 829.

The complainant withdrew its complaint and the case was closed.

A. R. No. 830.

Transferred to Formal Docket No. 445. The matter investigated, decided and order entered.

A. R. No. 860. Mary A. Cook vs. Winona Interurban Ry. Co. Shelter Shed at Woodward Crossing.

Matter taken up by correspondence with the officials of the Interurban Railway Company and on February 16th the Commis-

sion was advised that the shed had been installed and the case closed.

A. R. No. 863. In Re Excess Fares on I., C. & S. Traction Co.

After the filing of the last annual report the Commission was advised by the general manager of the I., C. & S. Traction Co. that it would keep its office open at Columbus so that passengers could purchase tickets for any train on its line. No further complaints having arisen, the case is closed.

A. R. No. 866. Rates on Junk from Martinsville.

As a result of further negotiations with the general freight agent of the Vandalia Railroad Company, it was agreed that the following rates on junk from Martinsville should be established: To Cleveland, \$2.25; Detroit, \$2.25; Battle Creek, \$2.25; Toledo, \$2.10; Milwaukee, \$1.85. This was a reduction of the rates in effect to Cleveland, Milwaukee and Battle Creek. The firm of Levi & Dubin advised that they were satisfied with the rates proposed, the same were established and the case closed.

A. R. No. 877. Dr. F. M. Siner vs. C. & E. I. R. R. Co. Discrimination in Fares.

Dr. Siner complained to the Commission that the railroad company was operating a train between Diamond and Brazil, making a round trip each day, carrying miners working in the mines at Brazil and vicinity, at the rate of 25 cents per round trip, whereas the general public were charged the rate of 2 cents per mile, making a single fare between the two points of 25 cents. The matter was taken up with the railroad company, which was advised that in order to maintain the low rate of fare upon this particular train it would be necessary that the general public should have access to it. The railroad company advised that it had complied with the recommendation of the Commission, and the case was closed.

A. R. No. 910. W. W. Linzy vs. I., C. & S. Traction Co. Care of Baggage.

Since the last annual report, negotiations were continued with the company in this case in which the Commission insisted that the company should provide facilities for handling baggage carried on its cars at Edinburg. Under date of December 1st, the Commission was advised by the general manager of the company that it had

installed a baggage agent at Edinburg and the company was now handling baggage to and from that point, and the subject was closed.

A. R. No. 924. J. A. Collett vs. Vandalia Railroad.

The facts in this case are identical with those in A. R. No. 752, and the abuse heretofore existing at this point has been remedied by the adoption of a new rule set out in said case, and the matter closed.

A. R. No. 934. Crawfordsville Wire and Nail Company vs. C., I. & L. Ry. Co. et al.

In this case the petitioner filed a complaint with the Commission alleging that by reason of the difference in classification prevailing in C. F. A. territory and in the State of Illinois under the ruling of the Illinois Railroad and Warehouse Commission the manufacturers of metal tanks and troughs in Illinois were securing better rates throughout that State than the Indiana manufacturers could secure from Indiana into Illinois territory on the same product. The Freight Association of Indianapolis filed with the Railroad and Warehouse Commission of Illinois a petition seeking to have the same classification prevail in Illinois territory as in the C. F. A. territory upon this commodity, and as a result of this action the Illinois Railroad and Warehouse Commission put into effect the same classification upon metal tanks and troughs within the State of Illinois as prevails in the C. F. A. territory, and the relief thus sought by the petitioner and others situated similarly within this State was secured, the petitioner notified, and the case closed.

A. R. No. 938. Ex Parte Gedge Brothers Iron Roofing Co. Rates. Interstate Shipments on Tanks and Troughs.

Matter was referred to Commissioner McClure and the case was disposed of in accordance with the following report:

McCLURE, *Commissioner*:

The Gedge Brothers Iron Roofing Co., of Anderson, Ind., wrote the Commission advising that the rates upon tanks and troughs from their plant were appreciably higher than upon the same product shipped an equal distance between points within the State of Illinois. Upon investigation it was found that the official classification which governed the shipment originating at the Gedge Brothers plant in Anderson did not

apply to the movement of similar product wholly within the State of Illinois; that the classification by the Illinois Railway and Warehouse Commission was such that Illinois rates were lower for an equal distance than obtained for the classification in the official territory. The matter was taken up with the railroads handling the Indiana product, and the Illinois Railway and Warehouse Commission was petitioned to modify its classification upon this product, and that Commission on May 30, 1911, issued Supplement No. 17, modifying its classification No. 10 by providing that tanks, iron or steel, plain, painted or galvanized, when shipped in less than carload lots would take double first. This places the Illinois shippers on a parity with Indiana manufacturers, and the Gedge Brothers advise the Commission that they appreciate the change that has been effected, and that they will be enabled hereafter to compete with Illinois manufacturers of this product when the distance of the shipment is anything near equal. I therefore recommend that the file be closed on the subject.

A. R. No. 940. E. T. Slider vs. Southern Railway Co.

Mr. Slider informally complained to the Commission that the Southern Railway was charging excessive rates on coal, sand and gravel. Considerable correspondence ensued between Mr. Slider and the Commission and the Southern Railway with reference to this subject, and the Commission failing to negotiate satisfactory rates, a formal petition was filed and the matter transferred to Formal Docket No. 444, under which number this matter was finally concluded by an order fixing rates upon these commodities on the line of the Southern Railway west from New Albany, in this State.

A. R. No. 953. Depot Facilities at Deerfield, Ind

Transferred to Formal Docket No. 564.

A. R. No. 954. Depot Accommodations at Winchester on I. U. T.

Proposed accommodations furnished by direction of Commission and case closed.

A. R. No. 956. Harry L. Hanna et al. vs. T. H., I. & E. Traction Company.

The petitioners complained that the Traction Company discriminated against the citizens of Plainfield by charging a greater sum for mileage books good for a thousand miles of transportation by selling the same mileage on other branches at a less sum. The matter was called to the attention of the Traction Company and a

uniform rate for such mileage was established on the lines of the respondent company. No further complaint having been made by the petitioners, the matter was closed.

A. R. No. 957. Crossing Gates at Hebron.

Transferred to Formal Docket No. 439.

A. R. No. 958. W. A. Rainford vs. C., I. & S. R. R. Co. Facilities at Lake Village, Ind.

In this instance complaint was made on account of the lack of shipping facilities at Lake Village. The company did not maintain stockyards at this point nor an agent to transact the business of the company. A station was built at this point under an order of the Commission, but stockyards and shelter for L. C. L. freight were not provided, and there was a lack of facility in securing cars for outbound shipment and for the expedition of inbound shipments, inasmuch as consignments were made to Schneider instead of to Lake Village, and the matter of ordering cars had to be done through the agent at Schneider, the first station north. A member of the Commission visited Lake Village, holding a conference with the citizens and the general manager of the railroad. As a result, it was agreed that the company would construct stock pens having a dimension of 40 x 60 feet, and divided into four pens; that provision would be made for the construction of a platform and building for the reception of L. C. L. freight; that a telephone line would be installed and a telephone put in, whereby the company's agent in charge of the station could telephone to the agent at Schneider for cars and proper bills of lading; that in the future all freight consigned to citizens of Lake Village and vicinity would be forwarded by the agent at Schneider without delay. The Commission is advised that these provisions have been carried into effect by the company, and no further complaint having originated upon these subjects, the case is closed.

A. R. No. 971. J. J. Moore vs. P., C., C. & St. L. Ry. Co.

Complaint was made that the Pennsylvania Railway Company at Kokomo, this State, required passengers desiring to make use of their cars from Kokomo to Indianapolis to purchase tickets at the depot on their main line and that they were then required to go some distance to the line of the L. E. & W., over which the respondent company operates its trains from Kokomo to Indianapolis to take the train; that at times when passengers arrived near train

time and had baggage to check it was an inconvenience, and requested the Commission to provide better facilities in this particular. The matter was taken up with the company and the Commission was advised that a small station building, located in the angle of the crossing of the L. E. & W. and Richmond division of the P., C., C. & St. L. was used as a depot for the accommodation of passengers desiring to board the company's trains on the L. E. & W. track to points south of Kokomo; that the building consists of a telegraph office and waiting-room, and that in addition a ticket office has been installed at this place; that at this point telegraph operators are employed day and night, who, in addition to their duties as such, sell tickets for points between Kokomo and Indianapolis, and that baggage is checked from this point and the baggage is now carried upon the company's trains. There is in addition to this station another station on the L. E. & W. in Kokomo which is used by both companies operating trains over the L. E. & W. tracks between Kokomo and Indianapolis. This disposing of the complaints made in respect to the facilities provided by the respondent company on its trains operated over the L. E. & W., the case was closed.

A. R. No. 983. Excess Fares.

Since the filing of the last annual report herein, the company has advised that it has desisted from collecting the ten cent excess fare where a passenger fails to procure a ticket prior to entering the car, and the case is closed.

A. R. No. 984. Complaint of Interstate Traffic.

Commission without jurisdiction, and case closed.

A. R. No. 985. Complaint of Excessive Express Charges on Paste.

Complainant advised that the charge made was according to the tariff and hence correct; if he desired lower rate to file petition. Nothing further being heard from him, case closed.

A. R. No. 999. Complaint of Train Service between Williamsburg Junction and Aurora.

Matter taken up by the Commission and service improved, and case closed.

A. R. No. 1000. Inquiry as to the Time when Claims for Demurrage are Barred.

Commission responded that the statute of limitations would apply as in other claims, but that in this case the statute had not run and the claim was not barred, and the case closed.

A. R. No. 1003. Complaint from Evansville, Ind., that the Fare from Cleveland, Ohio, to Evansville One Way is Greater than the Fare from Evansville to Cleveland.

Complainant advised that the matter was interstate but that Commission would investigate. Investigation made and response of general passenger agent of C., C., C. & St. L. Railway transmitted to complainant and case closed.

A. R. No. 1004. Rates on Cream.

Complaint of the Judson Creamery and Produce Company that a different or higher rate was charged on separator cream than upon milk, buttermilk, schmearcase, condensed milk and cream in cans. The Commission advised the petitioner as follows: "Considering the question that you raise as to whether or not ordinary cream or separator cream shall be construed as governed by the rates for condensed milk and cream, in view of the fact that the tariff does not provide any rate in its milk schedule for cream, the Commission is of the opinion that the rates for condensed milk and cream apply upon all conditions of cream, whether condensed or otherwise." Case closed.

A. R. No. 1005. Rights of Consignee Using Leased Private Track to Have Entries of Arrival of Cars Consigned to Him on the Leased Track.

In this case a conference was held and full investigation made and the following opinion was rendered by the Commission:

In re Demurrage Charge Made by the Indianapolis Union Railway Company on Cars Placed on the Switch of the Casady Coal Company, Consigned to the American Construction Company. No. AR-1005.

WOOD, *Chairman*:

The American Construction Co. complains informally in substance that the Indianapolis Union Railway Co. collects demurrage charges on cars consigned to complainant without giving legal notice to complainant, the consignee of the freight transported in these cars.

The Commission directed a conference about this matter which took place, and conducted also an investigation, during which briefs were filed by counsel for both parties. We find and conclude as follows:

The Casady Coal Co. is the owner of a private switch on the Indianapolis Union Railway at East Tenth Street in the city of Indianapolis, and permits divers consignees, among them complainant, to use this switch for car deliveries, for a compensation of so much for each car. Said Casady Coal Co. is a party to a written agreement with said Indianapolis Union Railway Co., containing among other things these stipulations: (8) "The second party (Casady Coal Co.) agrees that without the written consent of the first party (Indianapolis Union Railway Co.), it will not direct or authorize the use of said track for the benefit of any other party not one of the parties hereto." (9) "The second party further agrees to pay to the first party all amounts that may accrue for trackage and car service in accordance with the established rate thereof and the rules governing such service, for all cars to be loaded or unloaded on the side track herein described."

A statement submitted by the railway company shows that the name of the actual consignee of cars placed on this switch is known to the railway company. It shows also that between the dates of May 21 and November 26, 1910, forty-four dollars demurrage was assessed on twenty-three cars, and was paid to the railway company by the Casady Coal Co., the owner of this switch. This statement shows also that all of these cars except four were consigned to the American Construction Co.

The question and the issue between these parties is, whether demurrage can be collected on the nineteen cars consigned to the American Construction Co., and on cars hereafter consigned to the American Construction Co., without notice to that company; it being conceded that notice was given not to the American Construction Co., one of the lessees of the switch, but to the Casady Coal Co., the owner of the switch, and the contention of the railroad company being that notice to the Casady Coal Co. is all that is required of the railway company in order to collect demurrage on cars consigned to the American Construction Co.

The uniform code of demurrage rules was made effective in the State of Indiana by this Commission March 1, 1910, and since that date has been the law of demurrage in this State. Rule 4 provides; (a) "Consignee shall be notified by carriers in writing or as otherwise agreed to by carrier and consignee within twenty-four hours after arrival of cars, such notice to contain point of shipment, car initials and numbers and the contents, and if transferred in transit, the initials and numbers of the original car."

Demurrage is an extraordinary charge for the detention of cars after forty-eight hours are allowed for loading or unloading. It can accrue only when the carrier complies with the legal obligations imposed on him, in order that the consignee may certainly be informed of the arrival of his freight, and so have the necessary time to unload the car. It will be observed that the rule requires notice in writing unless otherwise agreed, the notice to be given within twenty-four hours after arrival, and to contain information of great importance to the consignee only, of the origin of shipment, of car numbers and initials, and of contents of the car.

The railway company insists that in this case complainant has waived all of these rights simply because he has leased the use of a private switch; or, in other words, the carrier claims that because the owner of the switch has made a certain contract with him, that the law of demurrage in this State is set aside by that contract. We cannot sustain this position. If the contract is inimical to the demurrage rule, to that extent it is not valid. It must give way, first, because the rule or the law is of greater force and authority, and, second, because it is imperative that demurrage must be of uniform application to all consignees whether deliveries to them are made on their own side tracks, or on the tracks leased or used by them, or on public delivery tracks. The law has conferred on consignees the right to have notice, in order that they may promptly release cars to be used by other shippers, and the law has made an absolute duty that the carriers shall give this notice, on account of the same general and public policy.

It appears also that the contract barely sustains, if at all, the contention of respondent. Stipulation No. 8 that the Casady Coal Co. will not allow the use of the side track to other persons without the written consent of the railway company, it is not claimed, has been violated in this case; and it is assumed that complainant has the right to use the track. The switch contract in itself is not as important as it may seem. A statute of this State compels the construction of sidings for the accommodation of shippers. If the railway company should annul this contract and take out the siding, its reconstruction could be ordered by this Commission without such stipulations as are contained in this contract. Stipulation No. 9 is only an agreement that the Casady Coal Co. will pay all amounts that may accrue for car service in accordance with the established rate thereof and the rules governing such service for all cars to be loaded or unloaded on the side track herein described. The controlling and pertinent rule "governing such service," is that notice must be given to consignees using this track, whether the consignee is the owner of the track or some other person permitted to use the track with the knowledge of the railway company. We strongly affirm of this contract, that we do not believe it was intended, and that it certainly cannot be construed to intend, to abrogate the well-known relations established by law between carriers and consignees.

Conforming our views that the legislative power delegated to this Commission in the Railroad Commission Act to make demurrage rules, is superior to the right of contract of said company in this instance, is the act and the terms of the act, of the General Assembly of 1907, known as the Shippers' Bill. Section 4 of that act (page 436 of the Acts of 1907), prescribes that "all carriers shall deliver to any consignee on his private track or track used by him for loading or unloading, or on their public delivery track." In case of failure the penalty accrues to the consignee. No distribution or difference is made on account of the track or place of delivery. The obligation of the carrier arising from custom, and from other statutes of the State is more clearly defined in favor of the consignee, who is the person most interested in all transportation, and there is nothing left of doubt as to his right of delivery, nor as to any such con-

tract as is submitted here being competent to deprive him of his essential rights of transportation.

We conclude that demurrage can be collected of the American Construction Co. when they are the consignees of freight delivered on the private track of the Casaday Coal Co., only when the notice prescribed by the uniform demurrage code is given to the Construction Co.

As to demurrage heretofore paid, this Commission has no power of reparation even in a formal proceeding. But as to demurrage accruing hereafter, a copy of this opinion will be forwarded to the Indianapolis Union Railway Co., to the Cassady Coal Co., and to the American Construction Co. with the recommendation which is hereby made to each of them, to act in these matters hereafter as is indicated herein. In the event of the failure or refusal of the Indianapolis Union Railway Co. to conform herewith, complainant is advised to commence formal proceedings to assert his rights.

Approved by the Commission.

April 19, 1911.

A. R. No. 1006. Shepler & Wolfe vs. L. E. & W. R. R. Co.

The petitioners informally complained that the L. E. & W. R. R. Co. had refused to switch cars arriving at Peru over other lines to the petitioner's plant, located at that point. The matter was informally taken up with the railroad company, resulting in the issuance of Tariff IRC No. 849, effective on both intra- and interstate movements, providing a switching charge of \$3.00 per car for all freight in carload lots arriving over other lines at Peru consigned to Shepler & Wolfe. The parties were notified, and the subject closed.

A. R. No. 1007. Train Service, Cambria.

Complaint was made of the failure of the company to stop certain trains at Cambria, the Commission being advised that formerly trains 37 and 38 were stopped at Cambria on flag, but that this service had been discontinued, and a desire was expressed to have these trains again stopped on flag. The matter was taken up with General Manager Westfall and the Commission advised that upon the installation of heavier power, whereby better time could be made on these trains, they would be stopped at Cambria on flag. June 24th General Manager Westfall advised the Commission that an order had been made, requiring trains 37 and 38 to stop at Cambria on flag, and, as this was all the petitioner desired, the matter was closed.

A. R. No. 1008. Shelter Shed and Facilities for Shipping Milk at Inglefield, on the Evansville & Southern Indiana Traction Company.

Matter investigated by Commission and an attempt made to adjust the same, which failed, and complainant advised that the Commission had no jurisdiction under the facts in this case to proceed in a formal way, and case closed.

A. R. No. 1009. Car Demurrage.

Complaint of Indianapolis Gas Company with reference to demurrage bill with the Vandalia Railroad. Complainant advised by Commission that the facts with reference to demurrage where the claim is denied was a matter for the courts and not for the Commission and it could proceed no further in the case, and the case closed.

A. R. No. 1010. Passenger Service on the T. H., I. & E. at Richmond, Ind.

Application to have trains of the T. H., I. & E. Traction Co., which run between Columbus and Indianapolis, back up to the depot at Richmond for the convenience of passengers. It being shown to the Commission that there was shelter at the point where passengers boarded the cars, it was thought best not to interfere with the present arrangement, and the case was closed.

A. R. No. 1011. Petition to Have Trains Nos. 37 and 38 on the Monon Railroad Stop at Yeoman, Ind., to Take on and Let off Passengers.

Matter taken up with the railroad company and service improved. Case closed.

A. R. No. 1012. Excess Charges on Shipment of Cattle.

Beard & Son of Oaktown inquire as to the proper rate and minimum on shipments of cattle. Response that 15 cents was the proper rate, the same being the sum of the local rates applying on two roads, there being no through rate.

A. R. No. 1013. Bumping Blocks, Jeffersonville, Ind.

Complaint filed by John Kipper, of Jeffersonville, against the P., C., C. & St. L. Co., setting out that trains are being pushed on the streets and sidewalks in the city of Jeffersonville on account of

bumping blocks not being provided. This matter was called to the attention of Superintendent Kron, of the Louisville Division, who remedied the condition by placing blocks at the points complained of, and the case was closed.

A. R. No. 1014. Depot Accommodations at Chili.

Matter taken up with the railroad company and conditions improved. With reference to heating the depot and some other matters, case pending.

A. R. No. 1015. Rates on Coal from Linton District.

LaPorte Carriage Company complained to the Commission of discrimination in the matter of coal rates, advising that their rate was \$1.18, whereas the rate to Michigan City was but 87 cents. Matter taken up by the Commission and thoroughly investigated, with the result that on October 19th complainants advised the Commission that they were now receiving coal from the Linton District under the 90-cent rate, thanking the Commission for their interest in this matter, and case closed.

A. R. No. 1016. Milk Rates.

The American Creamery Butter Manufacturing Association requested milk rates prevailing in this State, and full copies of rates supplied. Case closed.

A. R. No. 1017. Switching Rates and Deliveries from Connections at South Bend.

The George Cutter Company complained to the Commission that their plant was located on a private siding of the Grand Trunk Railway, but that company refused to deliver to it cars arriving in South Bend over other lines. Matter taken up promptly, with the result that the Grand Trunk Railway filed a tariff governing switching charges from other lines and providing that switching to petitioner's private track will be made at a charge of \$2.00 per car, effective September 1st. This being in complete satisfaction of the complaint of the petitioner, case closed.

A. R. No. 1018. Demurrage Credits Under Average Rule.

The Evans Milling Company inquired of the Commission as to whether it was entitled to have credit under the average rule accruing to other consignees who used, under agreement, its private

track. The Commission advised that the milling company was not entitled to credit for good time made by other consignees of cars set upon the milling company's track, and case closed.

A. R. No. 1019. Joint Rates on Logs.

Complaint of J. M. Buck & Co. of Bluffton of excessive joint rates on logs from Crete, Lynn, Carlos City, Modoc, Losantville, Moreland and Messick to Bluffton over the P. & E. Division of C., C., C. & St. L. and L. E. & W., via New Castle. Matter taken up at conference with the railroad companies and the following joint rates secured, namely, Crete and Lynn, $5\frac{1}{2}$ cents; Carlos City, Modoc, Losantville and Mooreland, 5 cents; and Messick, $4\frac{1}{2}$ cents. Case closed.

A. R. No. 1020. Excessive Rates on Groceries and Household Goods Shipped from Tenneson to Mackey, Ind.

On January 17, 1911, J. Yaser complained to the Commission of overcharge on groceries and household goods by the Southern Railway Company. This matter taken up with the auditor and finally settled on a basis which allowed under the tariffs a refund to Mr. Yaser of \$2.58, and case closed.

A. R. No. 1021. Complaint of 30-cent Minimum Charged by the United States Express Company for Transportation of Cream Regardless of Size of Can or the Distance Carried.

On investigation the Commission finds that rates are less than 30 cents per can up to distances of 150 miles, the minimum being as low as 14 cents per can, and the express company and petitioner so advised. Whereupon, in May, 1911, the express company advised the Commission that it had paid overcharges in accordance with the Commission's findings, and the case closed.

A. R. No. 1022.

J. R. Stafford complains that a car of corn was shipped from Huber to Cincinnati and was billed by Connersville agent in error on the Connersville rate. Matter investigated by the Commission and complainant advised that the charge was an error and that the car moved on the proper rate, and case closed.

A. R. No. 1023. Depot at Valentine.

This case involved the matter of a depot at Valentine, Ind., which could not be settled informally and was finally transferred to Formal Docket No. 451.

A. R. No. 1024. Electric Bell at Road Crossing.

January 22, 1911, C. A. Wood, Town Clerk of Brook, Ind., complained that the C. & E. I. R. R. Co. had paid no attention to an ordinance of the town requiring the installation of an electric bell at a highway crossing in the town. Matter taken up with the C. & E. I. Railroad, with the result that the bell, on the demand of the Commission, was duly installed, and the case closed.

A. R. No. 1025. Complaint that Cars on the I., C. & W. Traction Line do not Stop at Tenth Street Near Residence of Complainants in Olinville.

Matter referred to inspector for investigation, who reported that to make the proposed stop will be dangerous on account of the interlocking plant of the Big Four and I., C. & W. Railways. On this account Commission refused to order the stop to be made, but referred the matter to the general manager of the traction company, who took the same up with complainants. Nothing further having been heard, it is presumed that a satisfactory adjustment took place, and the case closed.

A. R. No. 1026. Clerical Error in Tariff.

Application of the L. E. & W. R. R. Co. to refund difference between 7 cents and $5\frac{1}{2}$ cents a hundred on 13 cars of lime shipped from Portland, Ind., to Richmond, Ind. The railroad company, at the instance of the Commission, having made affidavit showing that there was a clerical error in the tariff, the Commission allowed the company to make the refund to the shipper of the difference between 7 cents and $5\frac{1}{2}$ cents a hundred in accordance with its petition, and case closed.

A. R. No. 1028. Rates on Corpses.

Complaint of charge of \$10 for the transportation of a corpse from Kokomo, Ind., to Mentone, over the I. U. T. and Winona Interurban Company's lines. Commissioner McClure made the following report, showing the opinion and action of the Commission:

McCLURE, *Commissioner*:

In this case the petitioner complained to the Commission that he was charged \$10 for the transportation of a corpse from Kokomo to Mentone, the movement passing over parts of the I. U. T. and Winona Interurban companies' lines.

Investigation further showed that the K., M. & W. Traction Co. has originated at Swayzee, on the K., M. & W. Traction Co., and a charge

of 60 per cent. was made by this company and \$10 by the I. U. T. Co. to Mentone for both I. U. T. and Winona Interurban.

Investigation further showed that the K., M. & W. Traction Co. had no tariff on file governing the charges for this service. The I. U. T. Co. has a tariff on file providing a charge of \$5, and the Winona Interurban tariff fixing the rate at the full adult fare with a minimum of \$1.

The transportation of dead bodies is not a passenger service, and in the manner the respondent road handles the same it must be regarded as a freight service, concerning the charges for which the Commission is given no specific jurisdiction by reason of the fact that the traction company does not derive $33\frac{1}{3}$ per cent. of their revenue from freight business.

In this instance the respondent company was in error in making charge of \$10 for the service for the reason that the sum of the local charges for this service on both lines between Kokomo and Mentone was only \$6. The Commission is advised by the general manager of the I. U. T. Co. that it will make return of the \$4 excess charge.

The petitioner has been notified of the attitude of the company at fault and advised that under the law the question could be adjusted upon the basis of a refund of \$4. I recommend that the I. U. T. Co. be authorized in this instance to refund to the petitioner the sum of \$4.

A. R. No. 1029. Switching Charge at Auburn.

The Bachelor Brick and Tile Company informally complained to the Commission that in shipping brick from Angola to Wimer & Brown at Auburn, additional switching charges were made in delivering tile to Wimer & Brown that did not obtain on other shipments made from Angola to points in Auburn. The matter was taken up with the traffic department of the Vandalia Railroad and L. S. & M. S. Railroad, and upon investigation it was discovered that tariffs were on file providing for the same rate when shipments are made to Wimer & Brown as to other parties at Auburn, and the subject was closed.

A. R. No. 1027.

Matter pending.

A. R. No. 1030. Physical Connection Between L. S. & M. S. and Wabash Railroads at Steubenville.

Transferred to Formal Docket No. 463.

A. R. No. 1031. Train Connection at Poseyville Between E. & T. H. and Illinois Central.

Complaint of Hon. George W. Curtis with reference to train connections at Poseyville between the above named roads. Matter

taken up with the superintendents of the railroad companies, better connections arranged, complainant advised and case closed.

A. R. No. 1032. Station Facilities.

Complaint that station at Eaton is not kept open until the passing of the last trains on the railroad. Matter taken up by Commission and on February 8th Commission informed complainant that station will hereafter be kept open, and file closed.

A. R. No. 1033. Depot Facilities at Wheatfield, Ind.

Complaint of Kankakee Valley Review that there was no depot building at Wheatfield on the C., I. & S. R. R. Co. Matter taken up with the general manager of the railroad and October 27th the Commission advised that depot building has been completed and put in use, complainant advised and case closed.

A. R. No. 1034. Joint Rates.

Complaint of the Wabash Portland Cement Company of Detroit, Mich., that the Clover Leaf Railroad declined to make joint rates with the Wabash from Stroh, Ind., to points on the Clover Leaf. Complainant advised that the Commission has authority to make such rates, that if he will file formal complaint it will do so. Nothing further being heard, it is presumed that rates were made and case closed.

A. R. No. 1035. Coal Rates.

Complaint of the President of the Commercial Club of Princeton, Ind., that they could not secure proper coal rates from Princeton to Chicago. The rate situation with reference to mines nearer to Chicago than Princeton fully set out in a letter to complainant explaining the difficulty of obtaining such rates. Complainant advised that a member of the Commission would be in Evansville on a certain day to discuss this matter fully with him if he desired to do so. Nothing further being heard, it was presumed that former explanation was convincing and satisfactory, and case closed.

A. R. No. 1036. Train Service on Big Four Railroad.

Complaint of Hon. George Colvert, a member of the Legislature, and others, that they could get no adequate train service at Templeton, on the Big Four Railroad. Matter taken up promptly

with the Big Four Railroad and arrangements made to stop train No. 21 at that place. This being satisfactory to complainants, case closed.

A. R. No. 1037. Demurrage Charges, Discrimination.

Marion Brick Works, Montezuma, asks to be advised if railroad companies can enforce collection of demurrage, stating also that they failed to collect demurrage in certain cases from other persons. Complainant advised that the demurrage rules were uniform throughout the State, that the railroad could collect demurrage, but that the same must be collected without preference from all persons similarly situated. Commission desires further information with reference to any discrimination. Nothing further being heard, case closed.

A. R. No. 1038. Depot Facilities at Gosport.

Complaint of James R. Crawford, Chairman Railroad Committee of T. P. A., of depot facilities at Gosport, where interchange is made between the Monon and the Vandalia. Matter taken up with the Monon Railroad and advice from them showing situation, the same transmitted to Mr. Crawford, and nothing further being heard from him, the case closed.

A. R. No. 1039. Claim for Lost Trunk.

On February 23, 1911, L. J. Burr, of Anderson, Ind., advised of the loss of a trunk checked from Wawasee to Anderson on through round-trip ticket purchased by his wife at Anderson. This trunk by mistake was carried by the railroad companies to Boston, Mass., instead of to Anderson, Ind., and its contents were seriously damaged by the trunk being exposed to the weather and otherwise. The companies at fault declined to pay, each insisting that it was the fault of the other company. Matter taken up by the Commission, with the result that the claim was paid and the matter of which company was liable, submitted by the companies to arbitration, and the case closed.

A. R. No. 1040. Train Service.

Matter transferred to Formal Docket No. 460, which see.

A. R. No. 1041.

Closed on account of petitioner's failure to reply to letters of Commission.

A. R. No. 1042. Rates on Lumber.

Complaint of W. H. Bower, of Kurtz, Ind., of rates on lumber from points in Kentucky to points in Indiana. On the advice of the Commission a petition was filed with the Interstate Commerce Commission, where this matter is now pending.

A. R. No. 1043. Joint Rates on Interurbans.

Twin City Grocer Co., of Elkhart, Ind., complained to the Commission that the C., S. B. & N. I. and Winona Interurban Railway companies did not make joint rates, but required the payment of freight on the local rate of each company. Matter taken up, and after some correspondence the companies agreed to make such joint rates, although the Commission is without jurisdiction and the companies are not required to make such rates under the statute. Complainant advised and case closed.

A. R. No. 1044. Highway Crossing Signs in Cities.

Inquiry from general counsel of Lake Erie and Western Railroad whether or not Chapter 224 of the Acts of 1911, requiring railway companies to install highway crossing signs, applies to highway crossings in cities like Muncie, Kokomo, Peru and Indianapolis. Commission advised that it would be best to get the opinion of the Attorney-General on this matter, but that meanwhile the Commission felt that it would be necessary to obtain the consent of the City Council before installing highway crossing signs on the streets of cities. Matter closed.

A. R. No. 1045. Excess Switching Charges, Jeffersonville, Ind.

Transferred to Formal Docket No. 458, which see.

A. R. No. 1046. Passenger Service, Pere Marquette R. R.

Hon. G. H. Greiger, House of Representatives, complained to the Commission that there was practically no passenger service between LaCrosse and LaPorte on the Pere Marquette Railroad. A member of the Commission visited the locality, carefully investigated and found the statement to be true, namely, that the only passenger service afforded was by means of a mixed train, which was seldom on time, and that practically the Pere Marquette Railroad was operating that division of the line in this State without affording passenger service. The matter was taken up with the operating offices of the company, with the result that a passenger

train running two or three times daily was put on between La-Crosse and the State line between Michigan and Indiana. This service was afterwards improved and is now in such shape that it is satisfactory to the people in the localities affected, and the case closed.

A. R. No. 1047. No Telephone at Depot.

George H. Shouse, of Oakland City, complained to the Commission that the E. & I. Railroad Company will not allow a telephone to be installed in the depot at Oakland City. Complainant advised that the Commission has no jurisdiction to compel this service, and case closed.

A. R. No. 1048. Protection at Grade Crossing.

The Town Clerk of Sunman, Ind., complained that the railroad company refused to put in a watchman at a place where buildings greatly obstructed the view and rendered the crossing very dangerous, stating that the bell heretofore installed did not work properly and desiring advice. Matter taken up with the railroad company promptly, with the result that an agreement was reached whereby the bell was put in proper shape and affords proper service. This seeming to be satisfactory, and the Commission being advised that the bell is in perfect working order and will be so maintained, the case was closed.

A. R. No. 1049. Extra Cash Fare on Car.

William Souders, of Columbus, Ohio, complained that the Indianapolis and Louisville Traction Company charged 10 cents extra fare between Seymour and Louisville and no such charge is made between Indianapolis and Seymour. Complainant advised that these are different companies, but that matter would be taken up with the Indianapolis and Louisville Traction Company. The matter was so taken up with the company and their letter advising the reason for this charge was received and transmitted to complainant. Nothing further being heard, case was closed.

A. R. No. 1050. Penalty for Confiscating Coal.

The Big Muddy Coal Company asked the Commission whether or not they were entitled to penalty of 50 cents per ton on account of the confiscation of a carload of coal destined to them by the railroad company. The Commission replied, quoting Section 11 of

the act of March 11, 1907, as follows: "When for any reason coal in transit is confiscated by the carrier, immediate notice shall be given both consignor and consignee of such confiscation, and any carrier refusing or failing to give such immediate notice shall, on settlement, pay 50 cents per ton over and above contract price to consignee for such coal confiscated." This letter seemed to afford the information desired by complainant, and case closed.

A. R. 1051. Train Service.

Complaint to the Commission from various parties that trains do not stop at Handy for passengers to Lafayette and other points. Matter taken up with H. A. Boomer, general Superintendent of the L. E. & W. Railroad, with the result that on July 20, 1911, Mr. Boomer advised that he had instructed that train No. 2 shall stop hereafter at Handy. Complainants notified and case closed.

A. R. No. 1052. Protection of Crossing.

Complaint of the Common Council of the city of Monticello that the P., C., & St. L. Ry. Co. do not observe ordinance requiring said company to maintain flagman at the crossing of its line with Main and Illinois streets in said city. This matter being taken up by the Commission, both parties finally agreed to refer it to the Commission as the arbitrator in said matter. The Commission, through Commissioner McClure, took this matter up at Monticello and visited the crossings in question. It was decided that the ordinance should remain in force and be observed in every respect except that so far as the crossing at Illinois street was concerned a signal bell should be installed instead of a watchman maintained at that place. With this modification the ordinance was put in force and the case, to the satisfaction of all parties, was duly closed.

A. R. No. 1053. Interchange of Freight Between Steam and Traction Lines.

Matter of interchange of freight between the Lake Erie and the Ft. Wayne and Northern Indiana Traction Company, on State street, West Lafayette, submitted to the Commission on the complaint of W. S. Haggard. The matter was taken up and carefully investigated by one of the inspectors of the Commission, who made full report as to the conditions, whereupon the Commission advised complainant of the result of inspection, showing strong objections to ordering the interchange at this point, and case closed.

A. R. No. 1054. Failure of Express Company at Connersville to Take up Express Packages.

The Connersville Ice and Cold Storage Company complained to the Commission, asking information as to the duty of express company in calling for and taking up express shipments of ice cream. Matter taken up with the American Express Company, who advised the Commission that it would receive immediate attention. Further advice from the express company stated that the business was very light at Connersville and on this account they sometimes failed to call for shipments, but that it would do the very best it could to afford service to its patrons at that point. Explanation to complainant, with request that he would advise of any further failure. Nothing further heard from him, and the case was closed.

A. R. No. 1055. Construction of Wires Over Right of Way.

Clifford Suite, manager of the Sharpsville Telephone Company, asked for information with reference to act of General Assembly relative to the manner of constructing telephone, telegraph and other wires over the rights of way of railroads. Commission advised "That the act does not contemplate that copper or aluminum wires should be substituted for all wires that are now in use, but it provides that whenever it becomes necessary to renew an iron wire or to string a new one, that the new and renewed wire should be of the higher grade material. You will also observe that the poles at the crossings shall be securely guyed, shall not be less than twelve inches in diameter at the bottom nor less than six at the top, if wooden are used, and shall be placed in the earth not less than six feet and well tamped, and unless the right of way is wider they shall not be farther apart than one hundred feet at such crossing, and double cross-arms shall be used, braced and fastened with machine bolts." Case closed.

A. R. No. 1056. Pig Iron Rates.

Anchor Stove and Range Company complained as to the rate on pig iron from Birmingham to New Albany. Complainants advised to apply to the Interstate Commerce Commission, which has jurisdiction in such matters, and case closed.

A. R. No. 1057. Lack of Transportation Facilities.

Albert C. Derr vs. C., S. B. & N. I. Traction Co. Mr. Derr complained to the Commission that the traction company did not pro-

vide sufficient car service on its line between Michigan City and Laporte, advising that there were a large number of people residing in Michigan City who were employed in manufacturing plants at Laporte, and that these people traveled on the same car, leaving Michigan City at 5:30 a. m. and returning, leaving Laporte at 5:48 p. m.; that at times a hundred were carried on a small car, and frequently from 120 to 135 were carried on a car having a seating capacity of sixty only. The matter was taken up with the company, and the Commission advised on April 18, 1911, by its general superintendent that the company was then running additional cars to accommodate the travel between Laporte and Michigan City. No further complaints having been received by the Commission, the case was closed.

A. R. No. 1058. Coal Rates.

C. H. Holt complained of the 35 cent rate per ton on coal from Indianapolis to Lenora, on the Indianapolis Southern Railroad. Matter taken up with the railroad company, with the result that the rate was reduced from 35 cents to 25 cents, and case closed.

A. R. No. 1060 Increased Passenger Rates on Interurban Line.

Complaint of W. H. Jones, of Lake, Ind., that the charges on a branch of the E. & E. Electric Railroad were unreasonable. Matter taken up with the company, who claimed that they would not be able to operate this branch at all unless they charged more than they charged heretofore and the complainant advised. Complainant again wrote, calling attention to the law of 1907, whereupon the Commission advised that the act of 1907 was not now the law of this State, but with reference to passenger rates the same were controlled by Chapter 18, p. 51 of the Acts of 1909. Complainant further advised that the Attorney-General had decided that the Act of 1909 did not apply to interurban railroads, but that the Commission has been very reluctant to abide by the decision of the Attorney-General on this point in this matter. With reference to statement of complainant that it costs more to enforce a rate than it would to pay the rate, the Commission advised that if he so desired and would file a formal petition the Commission would hear the same at Evansville instead of at Indianapolis, near the locality affected; and also advised the complainant further as follows: "Meanwhile, if you are of the opinion that the traction company is violating the passenger rate law, your attention is

called to the fact that Section 3 of that law, on pp. 52 and 53 of the Acts of 1909, provides that the prosecuting attorney of any judicial circuit of the State may bring a suit to recover \$100 penalty for any violation of the law. Why not complain to the prosecuting attorney of the judicial circuit in which you live and have him enforce this penalty? This would cost you nothing, and if the interurban company comes under the terms of the law there should be no difficulty about enforcing the penalty." Nothing further being heard, the case was closed.

A. R. No. 1061. Typographical Error in Tariff.

In this case the Commission allowed a refund on account of typographical error in tariff.

A. R. No. 1062. Transportation Account of Advertising.

W. S. Whitney, of Springfield, Ohio, desired to be advised if it is legal for transportation companies to issue transportation for other than cash consideration, particularly for advertising covered by contract. Response: "The Commission is of the opinion that the language used in the act should be construed to mean that railroad companies may issue transportation as consideration for printing and advertising performed by publishers of newspapers when the printing and advertising is done under written contract." Case closed.

A. R. No. 1064. Protection of Side Track Crossing

In this matter the Indianapolis and Louisville Traction Company submitted to the Commission blue-print showing a derail with signal attached for protection of cars using the crossing of side-track at Crothersville. This crossing arrangement being satisfactory to the superintendent of the Pennsylvania Lines, the same was duly approved by the Commission and the case closed.

A. R. No. 1065. Failure of Conductor of Traction Line to Give Destination Ticket.

Complaint of Dr. E. N. Tull, of Fairland, that conductor on train stopping short of his destination failed to give him a destination ticket. Matter taken up with the traction company, proper refund made, and case closed.

A. R. No. 1067. Excess Fare.

Mr. G. E. Reiley advised the Commission that he purchased a ticket on the T. H., I. & E. traction line from Indianapolis to

Brazil and was charged \$1.15; that at Brazil he purchased a ticket for Amo on the line and was charged 55 cents for the same and on the car was charged an excess fare of 10 cents; that the distance from Brazil to Amo is 31.02 miles, and that the amount charged exceeded 2 cents per mile. The Commission took the matter up with the traction company and was advised that the company did not intend to make any charge in excess of 2 cents per mile even where excess fares were collected; and the company, through its general superintendent, agreed to readjust the tariff in this particular so as to show that the fare in the future should not exceed the 2-cent limit, and the case was closed.

A. R. No. 1067a. Rate on Household Goods.

J. A. Irvine vs. Winona Interurban Ry. Co. Complaint was made to the Commission of rate on a shipment of household goods from Leesburg to Mentone over the Winona Interurban Railway. The matter was taken up by correspondence with the general superintendent of the traction line, and as a result an adjustment was made between the parties. The Commission having no authority to fix freight rates on the line of the respondent company, the matter was closed.

A. R. No. 1068. Car Shortage.

Complaint of Osgood Lime and Stone Co. of B. & O. S.-W. R. Co. to furnish cars. Matter taken up by long distance telephone with the railroad company and cars furnished, at least a temporary supply, and case closed.

A. R. No. 1069. Unreasonable Chair Car Rate Between Lafayette and Indianapolis.

Complaint made to the Commission of the 35-cent chair car rate charged between Lafayette and Indianapolis, a distance of 65 miles. This matter taken up with the Pullman Company and an explanation made by its general passenger agent and transmitted to complainant. The same not being satisfactory, complainant filed a formal complaint in which this matter will be determined and this case closed.

A. R. No. 1070. Demurrage Charges.

Complaint made to the Commission, not giving enough facts to enable it to determine the case. Complainant requested to give further advice. Nothing being heard, case closed.

A. R. No. 1071. Protection of Railroad Crossing.

Case transferred to Formal Docket No. 466, which see.

A. R. No. 1072. Excess Fares.

J. A. Keane vs. L. S. & M. S. Ry. Co. Mr. J. A. Keane complained to the Commission that on April 27, 1911, he rode from South Bend to Chicago on the L. S. & M. S. Railway and was charged by the conductor 60 cents in excess of the regular fare. The matter was taken up with the general passenger agent of the Lake Shore and he advised that Mr. Keane had ample time to have purchased a ticket at the station at South Bend had he so desired. Relative to the excess fare of 60 cents, the Commission is advised that this is provided for in Tariff N-W No. 1, effective October 1, 1910, I. C. C. No. 3231, I. R. C. No. 285, p. 25 of said tariff. Investigation discloses that the tariff in question provides for this excess fare and that the same has been approved by the Interstate Commerce Commission. The same being an interstate rate and the tariff governing the same approved by the Commission, the petitioner was advised that this Commission was without authority to act, and the matter was closed.

A. R. No. 1073.

See A. R. No. 1078.

A. R. No. 1074. Poor Switching Service.

Dwiggins Wire Fence Co. vs. C., C., C. & St. L. Ry. Co. The Dwiggins Wire Fence Co. informally complained to the Commission of poor switching service provided by the C., C., C. & St. L. Ry. Co. at their factory located in Anderson, Ind., the company complaining that too much time was consumed in moving freight to the plant of the company and in switching outbound freight from the plant for shipment to customers in various parts of the State. The matter was investigated by the Commission by holding conference with the general superintendent of the railroad company, after which the Commission was advised by letter from the complainant that the service had been greatly improved and thanking the Commission for its service in the matter, and the case was closed.

A. R. No. 1075. Passenger Train Service on Goodland Branch of C. & E. I. R. R.

Complaint of Dr. J. W. Merry with reference to poor service. Matter taken up with the railroad company by correspondence and

by an interview between a member of the Commission and the general manager of that company at Chicago. Suggestion made by the Commission that some arrangement be made to extend the passenger service lately instituted on the Pere Marquette Railroad to Goodland on the C. & E. I. Railroad, it being a fact that the same crew could be used for both railroads. This matter pressed on the railroad companies, but, up to the time of making this report, without result, the service by mixed train, however, being improved. Matter still pending for better results.

A. R. No. 1076. Rough Handling of Baggage.

C. W. Lefler Hat Co. complained that trunks are handled by the railroads in a careless manner and inquiring if there is any law requiring railroads to unload baggage on trucks. Response by the Commission that there is no specific law on this subject and that railroad companies under their general duties were required to handle baggage safely, that complaint to each railroad should be made and, if relief was not given, the Commission would take up the matter. Complainants were further advised that if loss resulted from rough handling relief could be had in the courts, and the case closed.

A. R. No. 1077. Wire Crossing Over Railroad Tracks, Size of Poles, Clearance, etc.

John Tordella, division engineer of the B. & O. at Garrett, Ind., inquired of a statute regulating the above subject. On May 13, 1911, Commissioner McClure responded for the Commission as follows:

"The present Act requires that all telephone, telegraph and electric light wires shall have an elevation of not less than 25 feet above the top of the rail; that trolley and trolley feed wires shall have an elevation of not less than 22 feet above the rail; that transmission power wires shall have an elevation of not less than 35 feet above the rail. That telephone, telegraph and other wires shall be supported upon poles, if wooden are used, having a diameter of not less than twelve inches at the surface of the ground nor less than six at the top, placed in the earth not less than six feet, well tamped and securely guyed; that the wires shall be supported by means of double cross arms and attached to steel or wooden pins set therein; that the spans shall be not more than 100 feet in length unless the right of way is wider at the point of crossing; that the double cross arms shall be securely bolted by means of machine bolts and properly braced; that when it becomes necessary to renew a wire or string a new one, the wire at the point of crossing shall be either of copper or aluminum.

"The statute contemplates that any wire for the transmission of power by electric current having a voltage of 700 or over, except trolley and

trolley feed wires, over the tracks of any steam, street or interurban street railroad shall be suspended at a height of 35 feet above the level of the top of the rails where such wire also crosses the line of any telegraph, telephone or other wire. Such transmission power wire shall be supported either by wooden or iron poles or iron towers and shall be securely fastened thereto. The towers or poles and other structures supporting the crossing span shall be self-supporting or be so guyed as to be self-supporting. The crossing span shall not exceed 200 feet in length unless authorized by the Railroad Commission of Indiana. Foundations for towers or other structures shall be designed to resist overturning and shall be extended above the ground as a protection to such structure, and such transmission power wire shall be protected by wire basket, supporting cable or other device to prevent falling upon other wires or the tracks of such railroads. Before any person or corporation shall construct any such transmission power wire over the tracks of any such railroad such person or corporation shall submit plans and drawings therefor to the Railroad Commission of Indiana, and such Commission shall have power to approve or make such alterations or changes therein as will make the same conform to the provisions of the act, and it shall be unlawful to string any such wire over any steam, street or interurban street railroad without the approval of the Commission."

A. R. No. 1078. Complaint with Reference to Passenger Service on La Crosse Branch of C. & E. I.

See No. 1075 as to efforts of the Commission to secure better passenger service. In this case the Commission secured from general superintendent of the C. & E. I. Railroad a statement of passenger earnings on the LaCrosse Branch for one year, which indicates that it is very difficult to provide adequate passenger service where receipts are so small. Case pending.

A. R. No. 1079. Construction of New Depot at Corydon, Ind.

C. B. Blakey, general counsel L., N. A. & C. R. R. Co., inquired as to the requirements of law with reference to the construction of new depot. The Commission replied giving the requirements in case, namely, that the same should provide adequate waiting rooms with separate closets for men and women, should be well heated and well lighted and supplied with good drinking water, the entire premises to be kept in a sanitary condition. Case closed.

A. R. No. 1080. Imperfect Vision of Engineer.

Complaint to the Commission that an engineer was used in handling engines at Huntington whose vision was imperfect. Matter taken up with the superintendent with the result that assurances were given that this man would be used only to test engines

and a man go with him on a track used for no other purpose where there were no signals nor use for signals. This being satisfactory to the Commission, the case closed.

A. R. No. 1081. Wire Construction Over Tracks.

Inquiry of Bunsen Coal Co. with reference to the law on this subject. Response by the Commission that the wires constructed by person making the inquiry complied with the law with the exception of the height of the wires and diameter of the poles, and case closed.

A. R. No. 1082. Station Facilities at Warsaw, Ind.

Complaint of J. R. Crawford, Chairman of Railroad Committee, T. P. A., that the fence maintained between the main tracks at the station at Warsaw does not give legal clearance and that there is no shelter provided for persons desiring to take east-bound trains. An inspector of the Commission was sent to this place and made report that the fence should be removed and the shelter shed provided. Afterwards, General Superintendent Schoyer desired a conference with the Commission upon this subject and insisted that it was the earnest opinion of the Pennsylvania Co. that for purposes of safety it was best to maintain this fence, that under similar conditions in the State of Ohio and elsewhere the railroad company had found it best to do so. As to the fence, this matter was taken under further consideration by the Commission. Schoyer agreed for his company to provide the shelter shed, the want of which was complained of, and the case is still pending.

A. R. No. 1083. Expense of Elevating Wires in Order to Move Building Across Railroad Tracks.

Inquiry to the Commission when it was necessary to move a building across a railroad track and also necessary to elevate the wires for that purpose who should bear the expense, the owner of the building or the railroad company. Advice given as follows: "The Commission is of the opinion that because of the unusual use to which the highway was put under the circumstances, the wires being at such elevation as to accommodate the usual and ordinary traffic upon the highway without obstruction, the expense would be a legal one to be borne by the owner of the building to be moved." and case closed.

A. R. No. 1084. Failure to Furnish Refrigerator Cars.

Complaint from Princeton, Ind., that the Southern Railroad does not furnish refrigerator cars for ice shipments. Matter taken up with Superintendent Fallis, who responded that the supply of refrigerator cars was limited and that it has not been the practice of the Southern Co. to furnish such cars for ice shipments. Complainant advised as follows: "We are inclined to think that, under the circumstances, it would be very difficult to force the Southern Railway to furnish refrigerator cars promptly, if it could be done at all. The law would require the limited supply to be divided without discrimination between such shippers as needed them. The Commission is willing to do anything it can to aid you, and your attention has been heretofore called to the 'Shippers' bill,' but our experience in this particular line, as said above, indicates that little can be done, if anything, under the circumstances of this case," and case closed.

A. R. No. 1085. Rental Charge for Privilege of Constructing Telephone Wire over Railroad Company's Right of Way.

Inquiry as to whether the Commission has charge of private crossings and can the railroad company compel payment of rental for putting telephone wire over these crossings. Response as follows: "You are advised that Commission has jurisdiction as to construction of wires over railroads, whether at public or private crossings, and that it is of the opinion that where the telephone company obtains a franchise from the board of county commissioners to erect poles in the highways the railroad company has no right to exact a rental from the telephone company on account of its lines passing over the right of way of the company at the public crossings: that where a telephone wire crosses at a private crossing or at a point where there is no public highway, it could only be done legally by agreement between the company constructing the wires and the railroad company." Case closed.

A. R. No. 1086. Switching Rates at Bloomington.

June 14, 1911, O. C. Carter, G. F. A., Monon Railroad, called attention to the fact that the present switching rates made by the Commission at Bloomington expire by limitation June 14th, and asked direction as to what to do with these rates. Response: "The Commission knows of no reason which would induce it to alter its conclusions as expressed in the Bloomington case. This case has

been passed on by the Supreme Court of the State. We shall insist that although the limitation of the order has expired, you will observe the rates heretofore made, and the Commission will promptly suspend, when you shall file them, any tariffs raising these rates." Case closed.

A. R. No. 1087. Flagman With Less Than Year's Experience.

The Commission advised that a flagman on the P., C., C. & St. L. road was working on the trains without the year's experience required by the full crew law. Matter taken up with superintendent and direction given that this should not occur again, and case closed.

A. R. No. 1088. H. L. Maze et al. vs. Indianapolis and Cincinnati Traction Co.

The petitioners complained to the Commission of the service of the respondent company in the matter of handling milk from Acton to Indianapolis, alleging that the freight car on the line did not leave for Indianapolis until 11:17 a. m. each day, that by reason of the lateness of the arrival of the car the Indianapolis milk was spoiled; and complaint also was made that cans were injured by rough handling. The Commission advised the petitioners that it was without the jurisdiction of the Commission to make rules or regulations with respect to the handling of freight on traction lines, but it would take the matter up with the company to see if the trouble could be corrected. The Commission was advised by the company that it had reduced its freight service, but that the complainants could make use of the passenger cars to ship milk at earlier hours in the day than by freight, and that steps would be taken to require more care in the handling of cans to prevent injury to the same. The complainants were advised and the case closed.

A. R. No. 1089.

See No. 1094.

A. R. No. 1090. Inadequate Depot Accommodations.

J. D. Kennedy of East Chicago, Ind., complained of the condition of the Pennsylvania depot at that place. Matter taken up with the railroad company with the result that plans and blue prints were submitted to the Commission for the reconstruction of the depot, the same approved, the depot put in good shape, and the case closed.

A. R. No. 1091. Imperfect Train Service.

J. F. Cameron of Hamilton, Ind., complained to the Commission of poor train service on the Wabash Railroad. This case transferred to Formal Docket No. 580, which see.

A. R. No. 1092. Delay in Shipment.

Complaint of Valley View Seed Farm of Martinsville, Ind., of delay in shipment of corn from Bargersville to Louisville, Ky. Advice that Commission had no jurisdiction over interstate shipment, but that while facts were not fully given the delay mentioned by complainant was such as would justify a claim which could be made against the railroad company for damages arising in this matter. Nothing further being heard, case closed.

A. R. No. 1093. Damages for Property Destroyed by Fire in Depot.

Complaint made to the Commission of the failure of the B. & O. Railroad to pay complainant's claim for destroying a tackle block belonging to him. Commission afterwards advised that the railroad company would probably pay claim, and nothing further being heard, the case closed.

A. R. No. 1094. Complaint of Failure to Open Moore's Hill Station Early Enough in the Morning to Accommodate Patrons.

On June 9th, the Rev. Glenroie McQueen complained to the Commission that the station at Moore's Hill was not opened early enough in the morning. This being the second complaint, and the matter seeming to be urgent, the Commission took the same up on the long distance telephone with J. C. Hagerty, superintendent, who agreed to have the station at Moore's Hill open hereafter at 6:00 a. m., as the Commission desires shall be done, and to make the order effective at once, and case closed.

A. R. No. 1095. Rates on Mussel Shells.

The Petersburg Pearl Button Co. complained to the Commission of the 12-cent rate on mussel shells. Matter taken up with the Southern Railroad with the result that the rate was finally established at 7 cents per 100 instead of 12 cents. Case closed.

A. R. No. 1096. Lateral Clearance.

Inquiry from Connersville as to legal lateral clearance. The Commission replied calling attention to the action of the last General Assembly, making seven feet from the center of the track the proper clearance, and the case closed.

A. R. No. 1097. Rates and Fares on Interurban Lines.

Inquiry of Mr. Sanford Trippet of Princeton, Ind., on the above subject on June 19th. The Commission, through Commissioner McClure, responded as follows:

"In reply to your letter to the Commission of the 12th inst., with request to be advised as to the rate on freight carried by interurban traction lines, I beg to advise that this is not within the jurisdiction of the Commission. Your attention is called to the statute that empowers the Commission to supervise freight rates, but the same does not apply to companies that do not derive at least 33 $\frac{1}{3}$ per cent. of their gross revenue from freight traffic. The interurban lines do not receive that sum for traffic; therefore, as has been held by the Supreme Court, they are not subject to jurisdiction of the Commission.

"Relative to the subject of half-fares for children under 12 years, and as to whether or not the 2-cent fare law applies to interurban lines, the Commission has been twice advised by the Attorney-General that the 2-cent fare law does not apply to interurban railroads. The Commission has always entertained the opinion that the 2-cent fare law did apply, and the companies, with scarce an exception, have in the main complied with the 2-cent fare law.

"By reading the statute of 1909, Acts 1909, pp. 51 and 52, it will be observed that it is unlawful for any common carrier engaged in the carriage of passengers upon a railroad or railroads, between points in this State to charge in excess of 2 cents per mile for the carriage of an adult passenger, or in excess of 1 cent per mile for the carriage of a passenger between 5 and 12 years of age.

"The opinion of the Attorney-General turns upon the subject of common carrier on a railroad or railroads, holding that the electric lines are not railroads in the sense in which the word is employed in the statute.

"It is also a fact that when the bills were before the Legislature they were to be amended so as to include the interurban lines, but these amendments were defeated. There has been no decision by any courts, so far as the Commission is aware, upon this subject in this State, and it is suggested that if you have a plain case where the facts can be readily obtained that you advise the Attorney-General in order that he may institute a suit to recover penalties under Section 3 of the act referred to, and the question can be determined in a case of that kind upon a decision in the higher court in case of appeal taken."

A. R. No. 1098. Through Car Service, Evansville to Indianapolis.

On June 14, 1911, the Commission took up with the general managers of the C. & E. I. and Vandalia Railroads the matter of providing a through car to leave Evansville early in the morning and to be switched on to the Vandalia Railroad so that passengers could come through to Indianapolis without change either at Vincennes or at Terre Haute. It was shown to the companies that in this way and by making close connection passengers might arrive

here in the daytime from Evansville at 11:30 or 12:00 o'clock and have three or four hours in the city and return the same night. It was shown that a large number of people residing at Evansville, Mt. Vernon, Boonville, Princeton, would be accommodated by the putting in of said service. Negotiations continued about this matter during the balance of the year and are still continuing. The general managers, however, have represented that there are such close connections provided in this service that it is doubtful whether or not it can be secured. The case is still pending.

A. R. No. 1099. Free Transportation.

E. M. Collier of Liberty Center complained that cinders were carried free for Studebaker Brothers and that other persons were charged for the same. Matter taken up with the Toledo, St. Louis and Western Railway Co., who responded that this was in error, that the cinders referred to were used for the benefit of the public and that no material was delivered to the Studebakers free. Case closed.

A. R. No. 1100. Claim for Error in Carrying Freight to Wrong Destination.

The Indiana Silo Co. of Anderson complained that the Pennsylvania Railroad Co. shipped car of freight to wrong destination and desiring refund. Upon full investigation it appeared that the rate charged was that which would have been charged if the freight had moved the shortest way. Complainant advised that under the circumstances there could be no refund, and case closed.

A. R. No. 1101. Abuse of Demurrage Rules.

South Bend Coal and Wood Co. complained of demurrage charges by the Indiana Northern Ry. Co. On investigation, it being shown that the Indiana Northern Ry. Co. was not a common carrier but was a private switching concern owned and controlled by the Oliver Chilled Plow Works, the Commission advised that there seemed to be no remedy. Opinion in A. R. No. 1005 with reference to rights of consignees was enclosed to complainant and case closed.

A. R. No. 1102. Reconsignment.

Kinney & Co. complained that they had two cars of grain shipped from Elnora to Pittsburgh which were stopped at Indianapolis on account of the refusal of the railroad company to allow a

reconsignment. The matter taken up by long distance telephone, permission secured from the railroad company to permit desired reconsignment in this case as to these cars, and case closed.

A. R. 1104. Use of Through Trains by Local Passenger.

Walter Schroyer complained that he was refused passage on train No. 20 on New York Central Lines from Indianapolis to Anderson, having ridden on this train from St. Louis to Indianapolis, his ticket being bought to Indianapolis. Matter taken up with the general passenger agent, who explained that this was a solid through Pullman train and that it would cause inconvenience to through passengers to do local business. This explanation given to complainant, and case closed.

A. R. 1105. Handling Inflammable Material.

Terre Haute Oil Co. complained that the Vandalia Railroad Co. failed to unload gasoline and oil shipped by the oil company in iron drums. Matter taken up with the superintendent of the railroad company, who advised that instructions had been issued to trainmen to unload this freight, keeping the same as far from buildings as possible, consignees to remove the same as soon as possible. On account of the combustible nature of these products this practice is regarded as reasonable by the Commission, and the case closed.

A. R. No. 1106. W. W. Huffman vs. Southern Railway Co. Failure to Keep Station Open Thirty Minutes Before Departure of Train.

Mr. Huffman complained informally to the Commission that on June 1, 1911, he went to the station of the Southern Railway at Huntingburg, arriving there at 12:35 a. m.; the train was due to leave at 12:50; that he made inquiry as to the whereabouts of the ticket agent and was advised that he was some distance down the platform looking after baggage. When the train arrived Mr. Huffman advised the conductor that he wanted to purchase a ticket, but no one was present to wait on him. He was advised to take the train any way, which he did, and when the ticket collector came along he required Mr. Huffman to pay the excess fare because of his failure to have ticket. He remonstrated, calling the attention of the conductor to the fact that he was unable to purchase a ticket at the station although ready and willing to do so. The collector became offensive and threatened to stop the train and put Mr. Huff-

man off unless he paid the excess fare as requested, which he did. The matter was taken up with the assistant general passenger agent of the company, who, in effect, tendered a general denial as to the conduct of the collector. The matter was again called to the attention of the assistant general passenger agent and the following recommendations were made to the company:

"First. That you shall have some one in the station proper to sell tickets up to the time of the departure of trains, or during the thirty minutes immediately preceding the departure of the train within which time a passenger is required to purchase a ticket or pay excess fare in case he does not; either this or issue an order to the effect that if the agent is to handle baggage and mail and passengers arrive between the time the agent leaves the ticket office and the departure of the train such passengers will not be charged on the train more than the regular fare. You will note that it might become embarrassing to a passenger who came to the station with the intention of purchasing a ticket and had with him only sufficient money to pay the regular fare, and failing on account of the absence of the agent to purchase a ticket he might be put off the train because he was unable to pay the excess as was collected of Mr. Huffman under the circumstances of his case.

"Second. That the company shall impose proper discipline upon the ticket collector for the unwarranted and ungentlemanly manner used by him toward the passenger, Mr. Huffman."

The Commission was advised by Mr. Beam, A. G. P. A., that the recommendations of the Commission would be carried into effect, and the case was closed.

A. R. No. 1107. George L. Roby vs. American Express Co. Inefficient Service.

The complainant wrote the Commission advising that the company affords insufficient service at Fowler, that trains pass the station during the night but no agent of the company is at the depot at the time these trains pass and consequently no service is obtained from them. The matter was taken up with the express company and the company advises that since November 1st they have provided an agent to be at these trains for the purpose of handling express to and from Fowler, and the case closed.

A. R. No. 1108. Discontinued Tariff.

Clinton Coal Co. complained to the Commission that the tariff making joint coal rates for coal originating on the C. & E. I. and destined to points on the C., C., C. & St. L. had been discontinued. Matter taken up with the general freight agent of the C. & E. I.

with the result that these tariffs were re-established, complainant advised, and case closed.

A. R. No. 1109. Manufacturers' Coal Rates.

C. E. Miller, of Anderson, complained that he was denied the right given to other manufacturers on coal because he shipped in less than carload lots. Matter taken up with the assistant freight agent of the New York Central Lines, the Commission insisting that the manufacturer was entitled to the same rate as other manufacturers whether he shipped in carloads or less than carloads, with the result that Mr. Miller was put on the manufacturers' list and the case closed.

A. R. No. 1110. Ex Parte Indiana Electric Transmission Co. Construction of Transmission Power Wire over Railroad Tracks.

Application for approval of plan of construction of wire over tracks of Chicago, Terre Haute and Southeastern Ry. Co. at Latta Station. Some correspondence occurred between the Commission and the petitioner relative to the construction of its transmission power wire over the tracks of the railroad at the points mentioned. The company submitted blue print of plans and specifications showing the construction of the wire to be 36 feet above the rail, the poles and the manner of installing the same to be in accordance with the requirements of the statute, the same was approved and the case closed.

A. R. No. 1111. Car Shortage.

Moor and Crise, of Letts Corner, complained of car shortage. Matter taken up with the superintendent of the C., C., C. & St. L. Ry., who advised that while the railroad company was pressed for cars for the transportation of grain from July 10th to July 15th, during that time complainants received five cars, and that afterwards from the 17th to the 20th they received more cars than they could load. This seeming satisfactory, complainants were advised, and case closed.

A. R. No. 1112. Excursion Rules.

Inquiry whether or not the Railroad Commission of Indiana has made a rule by which compensation is paid to the society organization working up business for excursions. Advice that no rule has been adopted on this subject and that the practice may

continue of filing tariffs governing the rate applying under such circumstances, and the case closed.

A. R. No. 1113. Train Service.

This case concerns train service on the Effner Division of the Pennsylvania Lines and is still pending.

A. R. No. 1114.

Transferred to D. T. No. 3893.

A. R. No. 1115. Joint Coal Rates.

The petitioner asked to have joint coal rates established over the line of the respondent company and its connections. As a result of communications with the tariff department of the T., St. L. & W. R. R. Co., joint coal tariffs for the benefit of the petitioner were filed with the C., C., C. & St. L. and also with the C., I. & L. and with the L. E. & W. and F. W., C. & L. railroad companies. This has opened up territory for the petitioner to the extent of its desires except that it desires joint rates with the C. & E. I. to points within Indiana. The respondent company has been requested to establish joint rates over that line to points within the State, and the matter is still pending in that particular.

A. R. No. 1116. Claim for Damages.

This was a claim for damage to chicken coops by the Indiana Union Traction Co. The matter was taken up and after an extended correspondence and negotiation the amount of \$9.00 was paid by the Indiana Union Traction Co., instead of the \$18.00 claimed, and the case closed.

A. R. No. 1117. Freight Damaged by Fire.

The Hobart M. Cable Co. complained that a piano shipped by them was destroyed by fire in the warehouse of the railroad. Complainants advised that the duty of the railroad as a carrier ceased when the piano was placed in the warehouse and the consignee notified. Nothing further being heard, the case closed.

A. R. No. 1118. Box Car Stations.

The C., H. & D. Railroad applies for an extension of time within which to do away with the use of box cars at certain small stations. July 25th the Commission replied, and is inclined to grant a reasonable extension of time, but that new stations should be provided before the winter comes on, and the case closed.

A. R. No. 1119. Car Shortage.

Farden & Cooper, of Pine Village, complained of car shortage. General superintendent of C. & E. I. notified, who responded that cars would be furnished at once to complainants, and case closed.

A. R. No. 1120. Joint Rates on Coal.

The Domestic Block Coal Co. complained through J. V. Zartman, secretary of the Indiana Manufacturers and Shippers' Association, that the Big Four Railroad declined to make joint rates with the C. & E. I. on coal from Brazil to points on the Big Four. Commission responded that application should be made to the railroad companies to put in these joint rates and if they failed to do so the Commission, on application, would make such joint rates, and case closed.

A. R. No. 1122 Usefulness of Highways Impaired by Railroad.

Hon Warren N. Hauck complained that highways were destroyed by the Big Four in the reconstruction of its track. Complainant advised of the law in this regard and suggestion made to file a petition with the Railroad Commission setting out all the facts.

A. R. No. 1123. Depot at Rushville.

See Formal Docket No. 573.

A. R. No. 1124. Car Shortage.

W. B. Hutchinson, of Michigan City, complained of shortage of stone cars. Matter taken up with General Superintendent Trump of Grand Trunk Railway, who responded that within forty-eight hours cars will be furnished, and case closed.

A. R. No. 1125. Continuous Ringing of Crossing Bell.

Thomas Morrow, of Cromwell, complained of crossing bell ringing continuously. Matter taken up by wire with general manager, who responded that the same would be attended to at once. Afterwards general manager wired that bells had been repaired. No further cause of complaint, the case closed.

A. R. No. 1126. Wm. R. Hines vs. C., I. & L. Ry. Co. and the T. H., I. & E. Traction Co.

The petitioner in this case represented that he was desirous of building and operating a grain elevator along the line of the T. H.,

I. & E. Traction Co. between Lebanon and Frankfort and had failed to secure arrangements for interchange of service between said companies, and prayed the Commission for an order to require the two companies to make physical connection of their lines for the interchange of business in earload lots at the city of Frankfort. The C., I. & L. Railway Co. declined to join with the traction company to effect physical connection for interchange at Frankfort. After the petition was filed and a conference held between the carriers and the petitioner, the petitioner concluded that he would not engage in the enterprise suggested in his petition and requested the same to be dismissed, which accordingly was done, and the case closed.

A. R. No. 1127. Delay in Movement of Freight.

Kramer & Sons of LaPorte complained of wretched service on the Pere Marquette Railroad, giving specific instances of extraordinary delays in the movement of freight. Matter taken up with general superintendent in an extended correspondence, who advised finally that such changes had been made in the organization of his company that such delays would not occur again, and case closed.

A. R. No. 1128. Excessive Switching Charges.

J. M. Buck & Co., of Bluftton, complained of switching charges at that place. Matter transferred to Formal Docket No. 537, which see.

A. R. No. 1129. Depot Facilities at Caledonia.

Marion Coal Co. complained of depot facilities at Caledonia. Matter taken up by the Commission. It being shown that the population is small and business does not justify an agent, Superintendent McCabe is requested to investigate and advise what better facilities can be provided, and case pending.

A. R. No. 1130. Passenger Service.

Hon. J. H. Greiger complained of the irregular and delayed trains on the LaCrosse Division of the Pere Marquette. Matter taken up with superintendent, who, on August 7th responded that he had made a change in the organization with a view of bettering conditions and he believed there would be no further cause of complaint. Letter forwarded to complainant. Nothing further being heard, case closed.

A. R. No. 1131. Inquiry of A. A. Zion, superintendent Indianapolis Union Ry. Co., with reference to Senate Bill No. 70, the Same Being an Act to Regulate the Number of Men Engaged in Switching Cars.

Commission advised as follows: "You ask whether or not this law would allow you to continue to switch a train or cut of cars through to destination if one of the crew should suddenly become unfit for duty on account of injury or sudden illness or death. So far as this Commission is concerned, we endeavor to enforce railroad laws in a practical and sensible way. We would not commence a prosecution against your company for moving a train or cut of cars on to destination in the event of such unlooked for and sudden occurrence as you state might happen. We would be of the opinion that it would be best for all concerned that the train or cut of cars be carried on to destination and that the railroad company should not be put to the expense of delaying the train or cut of cars, nor the men be put to the inconvenience of delay in such a case as you mention." Case closed.

A. R. No. 1132. Overcrowded Cars.

J. Zimmerman and others, of Edgewood, complained to the Commission of crowded condition of cars on the I., C. & S. Traction Co. Matter taken up with the general manager, who explained that these conditions were caused partly by people of Edgewood and vicinity getting on through cars instead of local cars. The company agreed, however, to put on another car to relieve the condition, and case closed.

A. R. No. 1133. Stopping Trains of Cars at Railroad Crossings.

J. B. Cockrum, attorney of Lake Erie and Western R. R. Co., asked opinion of Commission concerning stops at railroad crossings by enginemen and motormen. The Commission replied that it has not changed its views on this question, expressed in case No. A. R. 263, found in the Report of 1907, p. 309. Case closed.

A. R. No. 1134. Routing Shipments.

Complaint of Dewey Brothers Co. of Manchester, Ohio, that the P., C., C. & St. L. refuse to forward car loaded with distiller's dried grain routing the same via the C., C., C. & St. L. Railway. Matter taken up with the agent of the P., C., C. & St. L., who advised that his company could not make delivery by the C., C., C.

& St. L., but would deliver at Indianapolis on its own tracks; whereupon, Commission advised the traffic department of the Pennsylvania that failure to route said car as per shipper's instructions would be in violation of the statute of this State, and the Commission would regard it as its duty to institute suit to collect penalty for such refusal. The Commission was advised on July 22d that instructions had been issued to route shipment via North Vernon and C., C., C. & St. L. Railway. The car was thus carried to destination and delivered to consignee, and case closed.

A. R. No. 1135. Stock Scales at Loogootee.

J. V. Smith vs. B. & O. S. W. R. R. Co. Mr. Smith complained informally to the Commission that the railroad company declined to install and maintain stock scales at Loogootee, Ind., for the purpose of weighing stock shipped over the line of road. The matter was taken up with the company and a conference followed between Mr. Smith and the company. The former writes the Commission that he has been thoroughly satisfied with the accommodations of the company and requests to close the case, which has been done.

A. R. No. 1136. Material for Telephone Wires.

J. C. Blair, of Lynn, Ind., desires to be advised whether copper clad wires may be used instead of copper wire in stringing a line over the right of way. The Commission advised, quoting law and advising that the statute expressly stipulates copper wire, and so far the Commission has not seen fit to modify the statute to the use of copper clad wire. Case closed.

A. R. No. 1137. Depot Accommodations at Brookston.

G. G. Jennings and others complain of depot accommodations at Brookston. Matter taken up with the company and some improvements made for which the complainants thank the Commission. Complainants advise that they are too busy to press the other improvements mentioned, and the railroad company insisting that conditions will be satisfactory at that point when cinders become properly packed, and that it had gone recently to very great expense in the construction of new depots and finds it impossible to go to further expenditure at this time, and case pending.

A. R. No. 1139. Continuous Ringing of Crossing Bell.

Complaint from Bainbridge that they desired a flagman instead of a crossing bell. The Commission explained that if the town

board should take action by passing a resolution on this subject and the railroad company should appeal to the Commission it would give the Commission jurisdiction in the matter. Meanwhile, the Commission requested the general manager of the railroad company to correct the continuous ringing of the bell, which was promptly done and complainants advised. Nothing further being heard from them, the case closed.

A. R. No. 1140 Train Service on LaCrosse Division of Pere Marquette.

On August 10, 1911, another complaint on this subject was received from W. W. Collom. This matter had already been taken up with General Superintendent Trump in other cases and the results obtained. Complainant advised of action in other cases, and this case closed.

A. R. No. 1141. Stock Pens and Loading Chutes.

Complaint from New Augusta with reference to condition of stock pens and loading chutes at that point. Case pending.

A. R. No. 1142. Failure to Place Car.

Carter Hay Company complained that they had a car of hay consigned from Zionsville, that the car had been in the city for several days in the C., C., C. & St. L. yards and they could not get the same placed. The matter was taken up with the railroad company with the result that the car was placed within the next two hours. Complainant advised, and case closed.

A. R. No. 1143. Violations of Full Train Crew Act.

A great many complaints on this subject reached the Commission and the matter was taken up with the Attorney-General with reference, especially, to the use of colored porters on the trains. This matter was further pressed by the Commission with the result that in most if not in all cases the colored porters have been taken off. As a further result of the agitation of this matter, the Commission has adopted a rule to have its inspectors when violations of this act occur to call upon the prosecuting attorneys in the various counties and report the facts, and if in the opinion of the prosecuting attorney the facts are such as to justify prosecution, affidavit is at once made by the inspector and the prosecution commenced. Whereupon this particular case was closed.

A. R. No. 1144. Fencing Right of Way.

Mrs. Lillian Gonser, of Hudson, Ind., inquired of the Commission concerning this subject, and the Commission on September 6th, through Commissioner McClure, responded as follows:

"In answer to your letter, requesting the Commission to take up the matter of requiring the railroad company to fence its right of way where it passes by or through your lands, Section 5447 of the Revised Acts of 1908 fixes the requirement of railroads to fence their right of way through improved and enclosed lands. Section 5448 of the same revision provides that when any railroad corporation neglects or refuses to construct a fence, barriers or cattle-guards, as provided in Section 5447, the owner of any lands abutting on the land or right of way of the railroad shall have the right after giving thirty days' notice in writing of his intention so to do, to be served upon the nearest freight receiving and shipping agent employed by the company, or person controlling and operating said railroad to enter upon the land, right of way and track of said railroad, and may build, erect and construct such fence, barriers and cattle-guards as therein provided for, so far as the lands of such landowner abut on the land and right of way of said railroad, and when he has completed the same he may present to the agent of such corporation or person controlling or operating such road at the nearest shipping station to the tract of land so fenced, an itemized statement verified by the affidavit of such person, or his agent, of the expenses thereof, including material and labor, and if such corporation or person so operating said road neglect or refuse for sixty days to pay said account such land owner may recover, in any court of competent jurisdiction, the reasonable value of such fence, barrier and cattle-guards from said corporation or person operating the same, together with reasonable attorney's fees: Provided, however, If such railroad corporation or other person operating the same so liable for the value of such fence, cattle-guards and barriers, shall, within sixty days, make a tender of a sum of money to such person in satisfaction of such claim or liability against such corporation or person, and such person to whom such tender is made shall refuse to accept the same in satisfaction of such claim, and shall sue for the recovery of the value of such fence, barriers and cattle-guards, and shall not recover more than the amount so tendered, he shall not in such action recover attorney's fees.

"If the right of way at the point in question had been fenced and the fence had become out of repair, then the land owner may notify the agent of the railroad company in writing at the station nearest the tract of land so owned by such person that any portion of the fence is out of repair, stating where the same is out of repair and the probable cost of making such repair, and if such railroad corporation, lessee, assignee or receiver, or other person or corporation shall fail for thirty days to make or commence such repairs, then the landowner shall have the right to enter upon the land and make the repairs himself, and shall furnish a sworn, itemized account of the cost of making such repairs, including the material and labor necessary, to the agent aforesaid, and if the bill is not paid within sixty days from the time the same was so furnished to

such agent, the said party so making such repairs may recover the reasonable value of such repairs so made from such railroad corporation, lessee, assignee, receiver or other person or corporation so controlling and operating the same, together with reasonable attorney's fees: Provided, That in case the said railroad corporation or person operating the same, liable for such repairs, shall, within sixty days, tender to such person so making such repairs a sum of money in satisfaction of such repairs made by him, and such person shall refuse to accept the same, and shall sue for the recovery of the value of such repairs, and shall not recover more than was so tendered, he shall not recover attorney's fees in such suit.

"The Railroad Commission of Indiana has no jurisdiction to require the fencing in question to be done when the statute gives the landowner the right to have his land fenced where the railroad passes through or by it and to collect the charges for making the necessary repairs."

A. R. No. 1145.

See A. R. No. 1137.

A. R. No. 1146. Failure to Furnish Cars.

A. E. Malsbary, of Remington, Ind., desires to know whether the railroad company can be compelled to deliver cars for his shipments when he has no grain elevator. The Commission replied, citing and quoting shippers' bill, advising the complainant to read the law carefully and to advise the carrier that he intends to assert his rights under this law. The Commission suggests that this would settle this question. Nothing further having been heard from him, it is presumed that it is settled, and the case closed.

A. R. No. 1147. H. E. Dorsey vs. Wabash R. R. Co. Overcharge on Freight Shipment, also Switching Charges.

See D. T. File on this subject.

A. R. No. 1148. Case transferred to I. R. Docket No. 3818.

A. R. No. 1149. Advance in Coal Rates at Seymour, Indiana.
Case pending.

A. R. No. 1150. Milling in Transit Rates.

This case concerned the discontinuance of milling in transit rates from certain points in Indiana. Complaint was made by Blish Milling Co., of Seymour, Ind. On September 4th the company advised the Commission that the rates would be reinstated and matter adjusted and asked the Commission to let the matter rest until they heard further from the Pennsylvania Co. Nothing further being heard, it is presumed that the case is properly adjusted and the same is closed.

A. R. No. 1151. Excessive Passenger Rates.

Scruggs & Co., Mooresville, complained to the Commission that the T. H., I. & E. were making an illegal and excessive charge in passenger rates between Mooresville and Friendswood. The Commission sent its consulting engineer to make an actual measurement of the distance between the two places, and it being found that according to the distance the correct charge was five cents instead of ten cents, the company was notified to correct the charge, which was immediately done and the case closed.

A. R. No. 1152 Claim for Damage to Sewing Machine.

L. Parker, of Indianapolis, claimed that a sewing machine had been damaged in transit from Spiceland to Indianapolis by the T. H., I. & E. Traction Co. On investigation it was found that the machine might have been injured after it was delivered to a local transfer company, but the claimant was advised that under the circumstances the Commission had no jurisdiction of the claim. On November 2d, however, the Commission asked Mr. Parker for further facts, and on November 3d received a letter advising that the matter had been adjusted, and the case closed.

A. R. No. 1153. Interchange Between Steam and Traction Railroads.

The Wabash Valley Sanitarium applied to the Commission to secure interchange of coal in carloads from the C., I. & L. to the Fort Wayne and Northern Indiana Traction Co. for delivery to the sanitarium. Matter taken up with the management of the C., I. & L. with the result that that company agreed to interchange cars intended for the sanitarium because it was a charitable institution, it being agreed also that this should not be considered a precedent to order interchanges at other points, and the case closed.

A. R. No. 1154. Reinstatement of Through Express Service.

The Clinton Ice Cream Co. complained that the United States Express Co. had discontinued transfer service between the C. & E. I. and the C., H. & D. depots at Hillsdale. Formerly the two railroad companies maintained one depot. Afterwards each company constructed a new depot, about 500 feet apart, and on this account the express company discontinued through service at that point. In this case, on the demand of the Commission, the express company agreed to install a wagon and transfer express from one station to the other, effective October 1st, and case was closed.

A. R. No. 1155. Unsatisfactory Train Service.

Citizens of Wakarusa complained to the Commission of imperfect train service at Wakarusa on the Wabash Railroad. Matter taken up with the general management of the Wabash Railroad, with the result that satisfactory arrangements were made, among other things including a stop by No. 6 at Wakarusa. This was satisfactory to petitioners and case was closed.

A. R. No. 1156. Box Car Depot at Rutland, Ind.

Complaint of P. D. Berlin that the New York, Chicago and St Louis Railroad used a box car for depot at Rutland, Ind. Matter taken up with the railroad company, when it developed that the earnings were so small that the railroad company had intended to make a prepay station of it. The railroad company advised also that if a store was opened at the place or a grain elevator put in and there was enough business to justify a station in any way, they would put up a station building. The matter still pending in order to get the same in satisfactory shape.

A. R. No. 1157. Depot Facilities at Stewart.

Complaint of J. F. Grant, asking for a new depot at Stewart, Ind. Matter taken up with the C., I. & S. Railway, whose general manager stated that the travel and ticket sales from that station were extremely light. However, the company had secured a second-hand building that they would have moved to the place, kept clean and well heated and lighted with other proper depot facilities. Petitioner advised, and this seeming to be satisfactory, the case was closed.

A. R. No. 1158. Tower for Control of Gates at Hazelton, Ind.

This case was the result of the old formal case at Hazelton in which the railroad company was required to protect crossings with electric bells and to absolutely maintain slow speed through the town of Hazelton. The slow speed ordinance was so strictly enforced by the Commission that it became burdensome to the company, and the result has been that concrete sidewalks have been constructed partly at the expense of the railroad company, it is presumed, on the north side of the tracks, and matters put in shape so that the railroad is not now used as a thoroughfare by citizens of that town. Meanwhile, also, the railroad company, in order to be relieved of the slow speed ordinance, has agreed to con-

struct gates at the crossings heretofore complained of and the gates have actually been put in. This complaint concerned their delay to put up a tower controlling the operation of the gates. In a conference with a member of the Commission, the general superintendent of the railroad company said that this would be done, and it probably has been done, but the case is still pending to keep advised as to the operation of the gates.

A. R. No. 1159. Legal Lateral Clearance.

Inquiry from Kokomo Sanitary Manufacturing Co. as to how close a concrete wall may be constructed to a switch track on premises. Advice that the proper clearance is seven feet from the center of track, and case closed.

A. R. No. 1160. Construction of Demurrage Rules.

Inquiry from the B. B. Bottle Co., of Spencer, Ind., as to construction of demurrage rules. The company was advised that while car was placed at 7 a. m. on the 16th and released at 3 p. m. on the 18th, as follows: "Whether you are liable or not depends upon whether the car was set before or after 7 a. m. on the 16th. If it was placed on your switch before 7 a. m., demurrage commenced to accrue from that time; from 7 a. m. the 16th to 7 a. m. the 17th, and from 7 a. m. the 17th to 7 a. m. the 18th is 48 hours. After 7 a. m. on the 16th the demurrage commenced to accrue and you would be liable for demurrage from that hour, provided, as said above, the car was set before 7 a. m. on the 16th. As to the second question, if you released the car before the first 24 hours and worked under the average agreement, you are certainly entitled to a credit of one day," and case closed.

A. R. No. 1161. Rate for Corpse, Interurban Lines.

Complaint from North Webster, Ind., of excessive fare charged by interurban line for transportation of corpse. Commission advised that it has no power over the rates on interurban lines, and case closed.

A. R. No. 1162. Reciprocal Demurrage.

Wadena Grain Co. of Wadena, Ind., desired to know if reciprocal demurrage prevailed in this State, if the principle of reciprocal demurrage was recognized in this State. Response as follows: "The uniform code of demurrage rules generally prevailing in

this and other States does not provide for reciprocal demurrage. To meet this want of the shippers, the Shippers' Bill, Chapter 231 of the Acts of 1907, was passed. This act gives the right to make the requisition for cars and to demand and collect a penalty if they are not provided. The act, however, extends only within the limits of the State. If the Commission had drafted an act attempting to extend farther than State limits it would have failed in its purpose." Inquiry being fully answered, the case was closed.

A. R. No. 1163. Delay in Shipment of Household Goods.

Complaint of B. H. Cook that the C., H. & D. had greatly delayed shipment of household goods. Superintendent called on telephone to advise reason of delay. Reason given to complainant, who was further advised that in such cases his remedy was in the courts to collect damages for the delay, and case closed.

A. R. No. 1164. Employment of Conductor by Traction Co.

Advice from the secretary of the Beech Grove Traction Co. that they had employed a certain man as conductor, the purpose of the communication being to obtain the approval of the Commission. The traction company advised that the qualifications prescribed by the recommendations of this Commission and accepted by the companies applied to the motorman and not to the conductor, that under the circumstances he had the right to employ Mr. Lancaster on the very good record shown by him, and the case closed.

A. R. No. 1165. Delay in Shipment of Household Goods.

George W. Steele, of Marion, complained to the Commission of delay in shipment on the Big Four Railroad. Matter taken up with the company and delay explained. Complainant advised that the reason for the delay was on account of repairs made to the car in transit, and nothing further being heard from him, the case closed.

A. R. No. 1166. Shelter Shed at Clingenpeel Crossing, Ind.

Case transferred to Formal Docket No. 554.

A. R. No. 1167. Train Service Over the Michigan Division of the C., C., C. & St. L. Railway between Shirley and Anderson, Ind.

The Commission took up with the C., C., C. & St. L. Ry. Co. the question of better train service between Shirley and Anderson.

Ind. The time of the trains from Anderson south is 7 o'clock a. m. and 2 o'clock p. m. The trains arrive from the south at 12 o'clock m. and 7 o'clock p. m. At points from Shirley north to Anderson the trains run at such hours as to give persons desiring to do business at Anderson only two hours' time. It was suggested to the company that the movement of the train from Indianapolis to Benton Harbor in the morning and from Benton Harbor to Indianapolis in the evening could be effected by leaving Indianapolis over the P. & E. Division and taking the Michigan Division at Shirley, thence north, via Anderson, to Benton Harbor. In the evening, instead of coming to Indianapolis over the Cleveland and Indianapolis Division the train could run to Shirley and thence to Indianapolis over the P. & E. Division, providing more accommodations and better time for people along the line between Anderson and Shirley when doing business in the city of Anderson. The company, through its general passenger agent, declined to make the change for the reason that the running time would be increased. The distance from Benton Harbor to Indianapolis via Shirley is several miles farther than via Anderson, and the matter was temporarily closed.

A. R. No. 1168. Interchange Between Steam and Traction Lines.

Complaint of the Indiana Grain Dealers' Association of failure to secure joint rates on grain originating on the Bluffton, Geneva and Celina Traction lines and destined to various points, State and interstate, on steam lines. As to interchange between steam and tractions lines, see opinion of the Commission in A. R. case No. 1053.

A. R. No. 1169. Failure to Stop Cars on Traction Line.

Complaint of C. R. Clarke, of Auburn, Ind., of failure of motormen on the Toledo and Chicago Interurban line to stop for flag stations for passengers in the night time. Matter taken up with the company by chief inspector, conference with superintendent of the company, and directions given to motormen to cease running by people at flag stops even though they do not display any light. The chief inspector believes there will be no further trouble along this line in that matter; complainant advised, and case closed.

A. R. No. 1170. Rates on Coal, Proper Charge.

W. H. Way, of Quincy, Ind., submitted to the Commission the question of charges made against him for a carload of coal. He

was advised that the proper rate was 55 cents a ton and that scale weights would apply not less than 80 per cent. of the marked capacity of the car, that otherwise the charge against him was correct. Case closed.

A. R. No. 1171. Rates on Coal when Half Car Loaded at one Point and Half at Another Point Farther On.

Wadena Grain Co. complained of charges made under circumstances mentioned in the heading in this case; one-half of the coal was unloaded at Lochiel, Ind., and the other half forwarded to complainants at Wadena who were charged for the marked capacity of the car. Complainants advised that under the tariffs on file, such a shipment not being in contemplation when the tariffs were made, they were necessarily charged the capacity of the car, and case closed.

A. R. No. 1172. Ex Parte Grain Dealers' Association. Petition to require Carriers to Safeguard "Order Bills of Lading."

A conference was held with the secretary of the Grain Dealers' Association and the traffic departments of the P., C., C. & St. L. Ry. Co., the C., C., C. & St. L. Ry. Co., the L. E. & W. R. R. Co., the C., H. & D. Ry. Co., the Vandalia Railroad Co., and the B. & O. S. W. R. R. Co., Mr. Bert A. Boyd, Grain Broker, and E. K. Shepard of the Cleveland Grain Co. It was suggested by Mr. C. B. Riley, Secretary of the Grain Dealers' Association, that "Order Bills of Lading" should be kept under lock and key at each agency on the lines, that when the same are issued they should bear the stamp of the agent and the order should be made out in ink, indelible pencil, or by typewriter, and should be issued in serial numbers. It developed that nearly all of the roads in issuing bills of lading require the agent to stamp the same and that the order is filled in in either ink, indelible pencil or typewriter at the present. Much objection was urged by the carriers against requiring the orders to be kept under lock and key and to be issued in serial numbers, for the reason that this would be no safeguarding against counterfeiting the same and putting in circulation fraudulent orders. It developed on the hearing that legislation is pending before Congress to require banks transmitting drafts with bills of lading attached to be responsible for the genuineness of the bill of lading connected therewith. If legislation along this line should be successful, it would afford the greatest protection to persons dealing in this class of security. The Commission will issue a circular

letter to all the carriers requesting that instructions issue to the effect that bills of lading issued by agents along their lines shall be in ink, indelible pencil or typewriter, and each bill be stamped in the same manner as tickets, and the case closed.

A. R. No. 1173. Overhead Clearance.

Application of Dodge Manufacturing Co., of Mishawaka, for permission to construct a bridge 17 feet above the top of the rail of the side track in their plant. Matter examined by inspector, who reported: "The proposed bridge will be 17 feet above the top of the rail of this track, which is a stub track, and this bridge will cross the track about 200 feet from the end, that the movements over the track are slow ones and the company will erect tell tales upon both sides of the bridge." Inasmuch as there is practically no danger, the Commission advised that no penalties would be exacted by this Commission for such construction, and case closed.

A. R. No. 1174. Bunching Cars.

Complaint of C. E. Belleville, of Evansville, of bunching cars. Rule 8 of Uniform Demurrage Rules quoted to him, which provides that where cars are bunched by the act of neglect of carriers additional free time should be allowed, and case closed.

A. R. No. 1175. Emergency Rate.

Application of carrier to make effective at once rate on pumpkins. Response allowing rate to take effect at once, and case closed.

A. R. No. 1176. Delay in Switching Cars.

Hoadley Stone Co., of Bloomington, complained of excessive delays in the switching of their cars at Bloomington. Matter taken up at the instance of J. V. Zartman, Secretary of the Indiana Manufacturers' Association, with A. H. Westfall, general manager of the Monon Railroad, who explained that the delay was caused by the congestion of business, that the congestion was cleaned up and would probably not occur again and Hoadley Mill was receiving all the switching complainants called for; complainants advised, and case closed.

A. R. No. 1177. Switching Facilities.

S. Bash & Co. complained of their switching facilities at Fort Wayne. Complainants promptly and fully advised of all their

rights in this matter, whereupon they asked for a conference with the Commission, the Commission advised that the same would be granted at any time, and case pending.

A. R. No. 1178.

Transferred to I. R. Docket No. I. R. No. 4096.

A. R. No. 1179.

Transferred to I. R. Docket No. I. R. No. 4097.

A. R. No. 1180. George J. Klemm vs. T. H., I. & E. Traction Co. Freight Service.

The complainant wrote the Commission advising that the T. H., I. & E. Traction Co. affords very inefficient freight service at Milltown, that the freight is carried from Milltown, which is on a branch line about two miles in length and connecting from Milltown to Cambridge City and at the latter place connecting with the main line of the respondent company; that the freight is carried on an open flat car and when the weather is threatening or raining the crew will not receive the freight and the petitioner is at times required to have his freight, which consists of flour, hauled to Cambridge City. The company has no turntable or siding at Milltown and it uses a flat car to haul what freight originates at that point to Cambridge City by using a car without any cover. In one direction it is necessary to push the car in front of the motor car, and if it was a covered car the view of the track would be entirely excluded from the motorman. The general superintendent of the company has provided a covering for the freight so that it may be received at any time, and provision is also made for the freight car to lay at Milltown one hour prior to each trip. The petitioner has been informed of the improved condition, and the case closed.

A. R. No. 1181. Temporary Depot.

Superintendent Ohlinger asks for extension of time to construct modern depot at Lewisville, time to be extended until certain track changes shall be made at that point and additional property acquired. Under the circumstances, petition was granted and the case is pending.

A. R. No. 1182. Petition from the Indiana Forestry Association with Reference to Free Transportation for its Secretary.

On October 10th the Commission responded to Hon. W. A. Guthrie, Chairman of the Finance Committee, as follows:

"Referring to your conference with Chairman Wood and your letter of the 6th with reference to free transportation for Mr. Edward J. Hancock, Secretary of the Indiana Forestry Association, I am directed by the Commission to call your attention to Section 13, Subdivision E of the Railroad Commission Act, page 479, of the Acts of 1907. You will note that among the exceptions to the rule forbidding free passes, the following are included, namely: Persons exclusively engaged in charitable and eleemosynary work. If Mr. Hancock is engaged exclusively in the work of promoting the Indiana Forestry Association, it seems to the Commission that a pass might be issued to him in accordance with the exception made to the act above quoted."

A. R. No. 1183. Switching Facilities.

Fox Hill Coal Co. of Ayrshire asked information of the Commission with reference to the power of the Commission to order switches. Advice that the Commission has such power, quoting the act of 1907 with reference thereto, and case closed.

A. R. No. 1184. John E. Griffith, Town Clerk of Dugger, vs. Illinois Central Railroad.

Complaint filed with Commission relative to the manner in which respondent line of railroad crossed a certain street within the town of Dugger. The Commission made certain investigations and finding that they had no jurisdiction relative to this matter, the same is therefore dismissed.

A. R. No. 1185. Depot Facilities.

Joel C. Burgess asked information from the Commission as to how depot facilities can be provided for Deerfield, Ind. Commission advised, calling attention to the recent act of the Legislature, whereupon petition was filed and this case closed and transferred to Formal Docket No. 564.

A. R. No. 1186. Discrepancy Between Actual and Minimum Weights.

The Grover Coal Co. complained to the Commission that it had received consignments of coal where the weight of the coal was less than the amount shown on the bill of lading and requested to be

advised as to what their recourse was. The Commission advised the company that, "In the event you have been charged for the minimum capacity of the car and it has been loaded to its actual capacity and it does not carry the minimum weight, then it would be your duty to file with the company a claim for a refund in your freight bill in order to reduce the amount that you should finally pay the company to what the freight would amount to charged on the basis of the actual weight carried in the particular car." Nothing further having been heard from the company, the case was closed.

A. R. No. 1187. Relative to the Examination of Employes of one Line Operating on the Line of Another Road.

The assistant general manager of the L. & N. Railway & Lighting Co. wrote the Commission, advising that under the arrangement between the Louisville & Northern Railway and Lighting Co. and the Indianapolis and Louisville Traction Co., which connect at Sellersburg, the employes of both lines and also those of the L., C. & S. Traction Co. operate over the lines of both roads, and the assistant manager above mentioned asked to be advised as to whether or not his company should examine the trainmen of the other lines that worked over the line of his road. Mr. Scott was advised that the Commission was not fully advised as to whether or not the different companies have in effect the same rules, but in case the rules are identical, the Commission held that the examination by the original employing company would be sufficient when a proper certification was made to the other company. Where rules and time-cards and bulletins were different, the Louisville and Northern Railway and Lighting Co. should examine the employes of the other companies where they operated over its line with reference to these matters, and the case was closed.

A. R. No. 1188. Passenger Rates.

Fred L. Bodenhafer complained to the Commission that the Toledo and Chicago Interurban Railway was charging ten cents between Kendallville and Stop 66, a distance of three miles. This matter was taken up with the superintendent, who advised that it was an error in the tariff and that bulletins had been issued and conductors directed to make a charge of five cents, and case closed.

A. R. No. 1189. In the Matter of Free Transportation Issued by the Gary and Interurban Ry. Co. and the Gary, Hammond and East Chicago Ry. Co.

This matter was investigated by the Commission and the following report was made, which was approved, and the case closed
McCLURE, *Commissioner*:

Information was imparted to the Commission to the effect that the above named traction lines had issued free passes and transportation to a number of parties along the line of the roads who were not entitled to the same under the act of March 6, 1907. I directed Mr. Scott, chief inspector of the Commission, to visit the offices of the company and make examination in reference thereto. He did so and reported a list of persons to whom free transportation had been issued by the Gary and Interurban Ry. Co. A number of these were issued to the officers of the company and employes thereof, who come within the statute, and to other traction companies and inspectors of the Commission, but a number of passes were issued to the officers of the cities of Gary and Hammond, Ind. The report of the chief inspector further contained the statement that the line of the Gary and Interurban Railway operates wholly within the corporate limits of the cities of Hammond and Gary and that the corporate lines of the two cities are contiguous, that the cars used thereon are of the ordinary street car type double end car, vestibules on both ends, no space for baggage or express, and that two 5-cent fares are collected on each trip, "one when you leave Gary or Hammond, as the case may be, and the other as soon as the car reaches the limits of the other city."

Section 18 of the Act of March 9, 1907, Acts 1907, p. 483, which defines the application of the Railroad Commission Act, contains the following language:

"The provisions of this act shall not apply to street railroads engaged solely in the carriage of passengers within the limits of any cities or towns in this State."

The Attorney-General of Indiana, in response to an inquiry of the Commission as to its power and authority over certain traction lines including the Gary and Interurban, after quoting the above sentence, says:

"If two or more cities were adjacent, a street railroad line occupying the streets of more than one of such cities would be also an interurban railroad, but under the clause numbered one above, the act would not apply to such railroad, 'if engaged solely in the carriage of passengers within the limits of such cities.'"

In the case of Michigan Central Railroad Co. vs. Hammond Electric Railroad Co., 42 Ind. App., p. 66, the court held that an interurban line operated through the cities of Hammond, East Chicago and Whiting is a street railway. The court, in its opinion, among other things, said:

"It is shown by the evidence that appellee operates large double truck cars through the cities of Hammond, East Chicago and

Whiting, all of which cities are contiguous to and in conjunction with an Illinois corporation, to Sixty-third street in the city of Chicago; that all of said lines, except a very small portion, are within corporate limits of a city or town; that no interstate cars are run, or expected to be run, over Calumet avenue, only local cars being operated thereon; that its franchise permits it to carry United States mail and persons and property, as provided by the act of the Legislature of 1901 (Acts 1901, p. 461, Section 5868a-5468h Burns 1901); that only passengers have, in fact, been carried over appellee's lines; that appellee was organized under the general street railway laws, and uses electricity as a motive power; that its lines are built on the public streets and highways; that it stops at all street crossings in the cities and towns through which it passes, and between such crossings where the distance is great or the convenience of passengers required it, to take on or let off passengers; that it maintains its tracks at a level with the streets and has paved and sprinkled certain portions thereof; that 5-cent fares could be charged from any point on its said lines to any other point thereon within the State, and transfers issued for connecting lines within any of said cities and towns operated by appellant.

"These facts clearly show that appellee was invested with and was exercising the rights, powers and privileges of a street railway company."

The facts in reference to the operation of the Gary and Interurban Railway are substantially the same as the facts set out in the Appellate Court decision above quoted, and that decision is especially in point so far as this company is concerned.

The line in question being wholly within the corporate limits of the two cities of Gary and Hammond, it must necessarily be limited to the carriage of passengers within the limits of the cities above referred to and therefore would not be subject to the provisions of the Railroad Commission Act, and could lawfully issue passes to whomsoever it might desire. I therefore recommend that this subject be dismissed from further consideration.

A. R. No. 1190. Change of Grade Crossing.

Case pending.

A. R. No. 1191. Switching Facilities.

Complaint of George M. Mock, of Indianapolis, for additional switching facilities. Under the circumstances of the case, the Commission was of the opinion that the application could not be granted and the case was dismissed.

A. R. No. 1192. Passenger Train Service.

Complaint from Poland, Ind., of passenger service on the C. I. & L. Railway. Matter taken up with the result that complainant

was advised that he might expect better train service in the future, but with reference to this and other matters, case pending.

A. R. No. 1193. Delays in Transportation to Points South of Ohio River.

Complaint from Logansport of delays in transportation to points south of the Ohio River. Complainants advised that the Commission has no power to compel railroads to afford quick transportation to points outside of the State and suggests application to Interstate Commerce Commission or suit in court for unreasonable delays.

A. R. No. 1194. Interchange from Steam Railroad to Switch on Traction Line.

Dixon & Locker, of South Bend, complained that their yard is situated on the traction line in such way that it is impossible to get steam line connection and asked that the Grand Trunk Railway be compelled to exchange cars to their siding. Matter taken up with the railroad company, and case pending.

A. R. No. 1195. Transmission Power Wires over Railroad Tracks.

The superintendent of the Vincennes Electric Co. advised that at two places in the city of Vincennes their wires crossed the railroad tracks at less than 35 feet elevation, the wires carrying a voltage of 2,300, and requesting to be permitted to maintain the wires at the present height of 25 feet. The Commission took the matter up with the superintendent, advising that the wires should be raised to the statutory height of 35 feet and constructed over these tracks in conformity with the act of March 6, 1911. Subsequent correspondence with the company resulted in the company agreeing to raise their wires to the full height of 35 feet and construct the same according to the requirements of the statutes and the recommendations of the Commission, and the case was closed.

A. R. No. 1196. Package Lost by Express Company.

C. E. Hall, of Greensburg, complained that he had shipped a package of goods by the United States Express Co. which had been lost in transit and the express company had declined to pay his claim. Matter taken up by the Commission with Mr. C. H. Crosby, vice-president and general manager of the United States Express Co., New York City. The express company claimed that because

package had been marked of the value of \$1.00 by mistake and by a boy who carried it to the office, the company was not compelled to pay the true value. With reference to this, Commission advised Mr. Crosby as follows:

"It seems to us the question in this case is whether or not his package contained articles worth the amount stated by him. After an investigation, if you should find that it was not true, you would, of course, not pay him the amount of his claim. Suppose, for instance, he had placed a valuation on this package of \$50 or \$100, would you pay him that amount? Certainly not. You would investigate to find out what was in the package, and if he could not show that it contained more than \$11 worth of merchandise, you would pay that and nothing more. Now, in all fair dealing, the same rule should apply when there is an undervaluation, unless the undervaluation is clearly made for the purpose of deceiving the express company as to the rate which it should charge. In this case we presume the charge would have been the same whether the package was valued at \$11 or whether the valuation was more. There was, however, no intent to deceive the company."

In response to this letter, Mr. Crosby advised as follows:

"As the amount involved in this case is small, hardly worth further controversy, we will, without prejudice and waiving none of our technical rights in the case, pay Mr. Hall's claim, provided we satisfy ourselves that the lost shipment has been correctly valued by him. We have instructed our general manager accordingly."

The claim was therefore paid and Mr. Hall advised the Commission, thanking them for their work in this matter. To Mr. Crosby's letter the Commission responded as follows:

"While the amount involved in this case is small, hardly worth further controversy, as you say, on account of the principles of right involved in this entire transaction I think you will conclude that your company was greatly at fault in holding the package ten days in Cincinnati for an additional thirty cents to be prepaid after Mr. Hall had paid the entire amount as required by your agent. I think you will conclude also that while the amount is hardly worth consideration as between men situated as you and I are it is really quite an item to the people who make this claim and therefore worthy of full consideration in order that it may be paid."

Claim was paid and case closed.

A. R. No. 1197. Depot Facilities at Caledonia.

Complaint made of facilities at this place. Matter taken up by the Commission and case pending.

A. R. No. 1198. Shelter Shed at Kennedy Avenue Station, East Chicago.

Complaint of want of shelter shed at this place. Matter taken up by the Commission, blue print of proposed shelter shed submitted and approved by the Commission.

A. R. No. 1199. Unsatisfactory Train Service.

Complaint from Patricksburg, Ind., that trains No. 101 and 102 on the C., I. & L. Railroad have been running constantly late. Matter taken up and fault located in the matter of improving the track near that point. This work is now completed and company agrees to maintain its schedules in satisfactory manner hereafter, and case closed.

A. R. No. 1200.

Transferred to IR-3765, which see.

A. R. No. 1201. Non-Statutory Lateral Clearance.

Application to maintain a bridge without the necessary clearance from center of the track, the insufficient clearance being lower than the height of a car floor above the rail. This matter given full consideration by the Commission, and it being clearly shown that no danger would be incurred by this construction the railroad company was advised that statutes for penalties would not be enforced on account thereof, and case closed.

A. R. No. 1202. Delays in Transportation.

Complaint of the Marion Iron and Brass Bed Co. through the Indiana Manufacturers' and Shippers' Association of delays in freight shipments. Response, quoting sections 3 and 4 of the Shippers' Bill, advising complainants to show to the railroad company that they would enforce the penalties prescribed, and nothing further being heard it is presumed that this was done, and case closed.

A. R. No. 1203. Routing Shipments by Express.

Orr Iron Co. of Evansville complained, November 7th, that practically they were not allowed to route shipments by express on account of the fact that connection would have to be made from one express company to the other. This matter taken up with the United States Express Co. by the Commission, insisting on the ab-

solute right of the shipper to route his shipments. On November 24th the United States Express Co. advised that the Adams Express Co. had been granted transportation service over the United States Express Co.'s route from Evansville to Vincennes, so that shipments could be made by the two companies on joint rate from Evansville via Vincennes to Bicknell, Ind. Complainants notified, and case closed.

A. R. No. 1204. Depot Accommodations at Cuzco.

Complaint of station service at Cuzco on the Southern Railroad. Case pending.

A. R. No. 1205 Complaint through the Indianapolis Freight Bureau of the Shipping Charge Assessed on Carload of Apples of J. W. Newman & Co.

Commission was of the opinion that this matter required a conference to properly adjust the same, and the same was set down to take place on the 17th day of November at 10:00 a. m. There were present the officers of the Big Four Railroad Co., including its attorney, and A. A. Zion and Mr. Kennan, auditor of the I. U. Railway Co. At this conference Mr. J. Keavy represented the complainants. Upon full advice from all present it seemed to be conceded that the switching charges complained of were authorized by the tariff. This being true, the only point to be decided was as to whether or not the amount charged exceeded the value of the services so far as the Union Railway was concerned. This matter was referred back to complainants to file a formal complaint if they considered it best to do so. Nothing further being heard, the case closed.

A. R. No. 1206. Fare on Miners' Trains.

Complaint made of the rate of fare charged on miners' trains by the Big Four Railroad at Terre Haute, Ind. Matter taken up with the railroad company, who on December 21st advised that they were making further investigation, and case pending.

A. R. No. 1207. Conditions at Tower at Pine Station on L. S. & M. S. Ry.

This case transferred to I. R. No. 3918.

A. R. No. 1208. Union Depot at Vincennes, Ind.

This matter transferred to Formal Docket Nos. 683, 584, 585 and 586.

A. R. No. 1209. Switching Facilities.

Complaint of F. B. Lash, of Farmersburg. This matter was heretofore before the Commission on a formal complaint and an order made granting petitioner a switch, which order was set aside by the Superior Court of Vanderburgh County. In this case the same matter is taken up again, petitioner insisting that he has a right to a switch at that place. Several conferences have taken place with reference thereto, and recently the consulting engineer of the Commission was sent to Farmersburg to endeavor to find a plan by which a switch could be constructed to the satisfaction of all parties. Awaiting the filing of his report, the case is pending.

A. R. No. 1210. Train Service.

Petition from citizens of Oolitic for Monon to stop certain passenger trains at said station. Matter taken up with the railroad company and the Commission finds that on account of certain grade conditions at Oolitic it is almost impracticable to stop certain trains. At the time of this report, matter still under consideration and pending.

A. R. No. 1211. Road Crossing.

Complaint from Kimmell, Ind., of dangerous condition of crossing near Kimmell. Inspector sent to make report, report filed and petitioner notified that the crossing was found to be in good shape, and case closed.

A. R. No. 1212. Delay in Transportation.

Rifner & Co., of Spiceland, complained to the Commission of a car of fruit delayed in transportation from Spiceland to Englewood, Kansas. Although this was an interstate matter, it was taken up with the superintendent of the L. E. & W., who advised delivery of the car, and case closed.

A. R. No. 1213. C. M. Smock vs. C., I. & L. Ry. Co. Train Service at Ockley.

The complainant wrote the Commission complaining that the C., I. & L. Ry. Co. did not afford adequate train service at Ockley. It developed that the company operates a train each way from Monon to Indianapolis, arriving at Ockley at 8:08 a. m. south bound, and 7:42 p. m. north bound. One additional train stops on flag. Prior to the last schedule issued by the company it had two

additional trains stopping at Ockley. These two have been discontinued. Ockley is located nine miles south of Delphi and sixteen miles north of Frankfort. The Commission has written the company recommending that these trains be restored to service at that point, and the matter is pending.

A. R. No. 1214. Wire Elevation.

Citizens of Winchester asked for information with reference to elevation of wires of the Citizens Water & Light Co. Full information with reference to this subject given and case closed.

A. R. No. 1215. Accommodations at Passenger Station.

A. C. Bauer, of Eaton, complains of accommodations at passenger station of the Indiana Union Traction Co. at that place. Attention of general manager called to conditions and prompt advice from him that conditions have been corrected, and case closed.

A. R. No. 1216. S. A. Graham vs. Ft. Wayne & Springfield Traction Co., Decatur, Ind.

In this case the complainant wrote the Commission advising that he is the receiver of a newspaper located at Decatur, Ind., that he is operating the plant, that he receives his printing paper largely from Fort Wayne and the same is carried by the respondent traction company; that many times the paper arrives at about 4:00 o'clock in the afternoon at the time the paper goes to press and that the B./L. does not follow until a day or two afterwards and is usually presented with a draft attached; and that the traction company advises that it will decline to deliver shipments hereafter without the B./L. being presented. The company has notified the shipper and consignee that it will not receive shipments hereafter. The receiver requests to be advised if the road has the right to refuse the shipment. The Commission advised the receiver that the company has the right to make reasonable regulations with reference to the shipment of freight tendered it, but that it cannot decline to receive freight that is properly prepared for shipment and the carriage of which is not prohibited by law, that the shipper has a right to protect himself by a B./L., and where a B./L. has been issued the railroad company may properly refuse to deliver the goods until the B./L. is presented, otherwise the object of the B. L. would be circumvented and the protection of the shipper lost. The Commission suggested that arrangement be made with the shipper

to avoid the delay incident to the issue of the B./L. and that the shipper have the B./L. forwarded through the traction company to his correspondent at Decatur upon the same car or in advance of the car carrying the shipment, and that in this manner the trouble would be obviated. The Commission receiving no further complaint, the case closed.

A. R. No. 1217. Dangerous Crossing.

John F. Wiggins, of Fortville, complained of bad crossings over Big Four tracks. Matter taken up with the company who advise that they will give prompt attention, and case pending.

A. R. No. 1218. Clearances.

Mayflower Milling Co., of Ft. Wayne, asked advice as to legal clearances. November 25th full advice given, and case closed.

A. R. No. 1219. Demurrage Charge.

Capital Paper Co. complained of demurrage charge because notice of arrival of car reached them at 9 o'clock while free time was computed from 7 a. m. that date. Complainant advised to hold up payment of claim until conference could take place with superintendent of freight transportation of the Big Four, and case pending.

A. R. No. 1220. Electric Gongs.

George W. Osborn, of Sheridan, complained that the Big Four had not installed gongs at street crossings as ordered by a resolution of the board of trustees. December 1st, Commission requested copy of the resolution in order to call the attention of the railroad company to the same. No response to its letter up to this time, and case pending.

A. R. No. 1222. Refusal to Deliver Cars to Private Switch.

J. R. Riggs, of Sullivan, complained to the Commission December 2d that the Big Four Railroad refused to deliver cars on the coal switch at Phoenix, although heretofore such deliveries had been made. Matter taken up with the C. & E. I. Railroad, and on December 14th superintendent Muir advised that they will handle cars hereafter as requested, and case closed.

A. R. No. 1224. Fares and Stops on Traction Line.

G. H. Fairbanks, of Kendallville, inquired as to certain practices of the T. & C. Interurban Co. Complainant advised that

company should make its charges conform to the two-cent fare law with the minimum of 5 cents, the Commission stating as follows:

"The statute also provides that the company is entitled to take fares in multiples of 5 and to charge the multiple of 5 that is next to the sum obtained by multiplying the distance by 2, and further, that fractions of a mile of one-half or over should be counted as a mile. Under this statute, if a person traveled $3\frac{1}{2}$ miles up to 5 miles a fare of 10 cents could be lawfully charged.

"Regarding your second question, the company is not required to come to a full stop before passing over a highway crossing. It is required to give the necessary signals.

"As to shelter sheds, there is no statute requiring this to be done. The Commission has always used its influence with the traction lines to construct shelter sheds at such points where there was any considerable travel. If there are a number of people making use of the line at any point the Commission will be pleased to take the matter up with the company to provide suitable waiting-rooms for the public."

Nothing further being heard from complainant, case closed.

A. R. No. 1225. O. C. Bryant vs. B. & O. S. W. R. R. Co.

The complainant wrote the Commission advising that as trustee of Spice Valley Township, Lawrence County, he had coal shipped from Mitchell to Georgia, a distance of 5 miles, and from Mitchell to Huron, a distance of 10 miles, and was charged a rate of 40 cents a ton. It developed that the coal was shipped from West Virginia and consigned to the complainant at Georgia and Huron at the rate of \$1.90 per ton. Investigation showed that the rate to Huron and Georgia is \$1.70 per ton. Mr. Bryant was advised that the tariff rate to points of destination of the coal shipped by him is \$1.70 and that he is entitled to a refund of 20 cents per ton if it originated on the line of the B. & O. Road, and he was advised to file a claim with the company for that amount, and the case closed.

A. R. No. 1226. Keeping Station Open.

Complaint that the station at Fort Branch closed at 6:05 p. m. This being a station on a traction line, and it being shown that ample facilities were afforded by a general storehouse, complainant was advised of conditions, and case closed.

A. R. No. 1227. Wire Elevation.

T. J. Johnson, of Bunker Hill, asked the Commission over the telephone as to the correct elevation of wires over railroad right of way and as to whether the same could be run under the railroad. Full information given and case closed.

A. R. No. 1228. Dangerous Operation of Exhaust Pipe.

Complaint of superintendent of the Big Four Railroad that an exhaust pipe from an elevator at Summitville was so operated as to endanger his men in switching. Matter taken up with owner of the elevator with the result that necessary changes were made and case closed.

A. R. No. 1229. Station Buildings.

Complaint of station facilities at Toto. General manager of the C., I. & S. requested to correct conditions and to advise, and case pending.

A. R. No. 1230. Rights of Consignee.

This case involved the right of the Central Gravel Co. to have the C., H. & D. Railroad Co. deliver cars to private switch on that road belonging to Reinecke & Short. The petitioner, it appears, had obtained the consent of Reinecke & Short to use this switch. The railroad company refused to receive the cars from the Vandalia connection and deliver them on the switch on the ground that the owner of the switch could not make an agreement for its use without their consent. A conference was arranged, attended by complainants and by the legal and operating representatives of the railroad company. The Commission directed the delivery of the car in question and directed that the legal question involved be submitted and a brief filed by Messrs. Elam & Elam, attorneys for the railroad company. The Commission called attention to its ruling in a similar case, A. R. No. 1005, and intimated that it would hold that under the authority of the Shippers' Bill, p. 434, of the Acts of 1907, the railroad company would be compelled to accept cars to their connections and to deliver them on this switch.

A. R. No. 1231. Delay in Shipments of Coal.

Geo. S. Cook, of Hope, Ind., complained of delay in coal shipments from Indianapolis and asked for information as to his rights. Full information given him, quoting Shippers' Bill, and case closed.

A. R. No. 1232. Pullman Reservations.

J. G. Starr complained of discrimination at the Union Station in allowing reservations of space in Pullman cars. Matter taken up with H. P. Clements, general agent, who advised the Commission that it was the wish and effort of their company to treat all

their patrons alike, without discrimination, and that their rules were made to that end. Mr. Clements further advised a willingness to adopt and carry out any reasonable rule upon this subject, explaining the difficulties connected with it. Complainant advised, and nothing further being heard from him, case closed.

A. R. No. 1233. Delayed Shipments.

F. R. Wilson, of Muncie, on December 11th, complained of delay in transportation of household goods from Corydon to Muncie. Matter taken up by wire with the Southern Railroad with the result that on December 13th Wilson advised that goods had arrived, and case closed.

A. R. No. 1234. Shortage of Cars.

Cottrell Brothers, of Terre Haute, complained of their failure to get empty cars when ordered. Commission had conference with complainants upon this subject, when full advice was given them as to mode of procedure under the Shippers' Bill. They were advised to file their applications for cars under said bill and to advise if they were not promptly furnished. Nothing further being heard from them, it is presumed that they are satisfied with present arrangements, and case closed.

A. R. No. 1236. Express Rates.

Connersville Ice Co. complained about increased charges on return of empty ice cream packers. Complainants advised of ruling made by the Commission September 1, 1910, and that the same is still in effect. Nothing further being heard from them, it is presumed the same has been applied in their favor, and case closed.

A. R. No. 1237. Depot Accommodations.

Anderville Shaw, of Shelbyville, Ind., asked to be advised with reference to the law requiring railroad companies to construct depots. Commission responded, calling attention to Chapter 238, p. 603 of Acts of 1911. Nothing further being heard from complainant, case closed.

A. R. No. 1238. Free Transportation.

The mayor of Kendallville inquired as to whether or not an interurban company could carry citizens of a certain city to its

power plant free of charge for the purpose of showing them the plant. The Commission responded as follows:

"Your letter does not disclose, but ordinarily power plants of interurban lines are located within the limits of a city or town on its line, or within the suburbs thereof, and that the same may be reached over the cars operated as city cars within such limits. If the movement should be over such cars, then there could be no question arise as to any discrimination being made by the company that would subject them to any penalty of any statute known to the Commission. If, on the other hand, the power house in question was without the limits of the city and on the line of an interurban road and cars only of an interurban character would reach the same and the company had advertised to carry any citizen of the city to such plant free of charge, and the proposition was open to all citizens alike, there could be no discrimination and there would be no liability under the section referred to. The fact that such interurban company would at the same time be endeavoring to negotiate the sale of current for city lighting purposes could not in any wise have anything to do with any discrimination in the matter of the operation of its lines. Discrimination does not arise in the carrying of passengers on an interurban or steam railroad when the rate is the same for like service to every one. If the railroad company desires to carry the citizens, or whoever may desire to go, upon any of its cars or upon certain of its cars designated, the Commission is of the opinion that the act is not in violation of any statute of the State."

A. R. No. 1239. Passenger Service.

Complaint that the passenger service on the B. & O. Railroad at Napanee is insufficient. The subject taken up with the superintendent of the Chicago Division on December 29th. At this time no response.

A. R. No. 1240. Service on Traction Line.

Complaint of H. L. Norris at 39 E. Market street, Indianapolis, enclosing newspaper clippings showing poor service on the T. H., I. & E. Traction line. The Commission responded calling attention to the difficulty of doing anything with a general complaint and saying that while it knew that cars were frequently overcrowded and while it was doing its best to correct this, it was one of the most difficult matters it had endeavored to take care of. The Commission asked Mr. Norris to give specific instances of the evils complained of, but nothing further having been heard from him the case was closed.

A. R. No. 1241. Delay in Transporting Baggage.

Complaint of Maxwell & Co., of Chicago, that trunk of one of their traveling salesmen was carried in an interurban car which

ran two hours after the train on which a passenger was carried. Complainants were finally advised that the Commission had no jurisdiction over a claim for delay like this if the company refused to pay it, advising that it was a matter for the courts, and the case closed.

A. R. No. 1242. Complaint of Passenger Fares on T. H., I. & E. Traction Line in Excess of Two Cents per Mile.

Complainant advised that the question was now under consideration and would be determined by the decision in the case pending.

A. R. No. 1243. Complaint of Passenger Fares on T. H., I. & E. Traction, Bridgeport to Indianapolis.

L. V. Stewart complained of the passenger fares on the T. H., I. & E. Traction from Bridgeport to Indianapolis. The matter taken up with the company and under consideration.

A. R. No. 1244. Keeping Station Open.

W. G. Hopkins complained of depot not being open prior to arrival of trains at Fort Branch. The same subject was up under A. R. No. 1226. This case transferred to that number, and this number closed.

A. R. No. 1245.

See A. R. No. 1239.

A. R. No. 1246. Shelter Shed at Nellans' Crossing.

Complaint that the Winona Interurban Railway Co. did not maintain shelter shed at Nellans' Crossing. Matter taken up with the company and shelter shed installed, and case closed.

A. R. No. 1247. Failure to Check Baggage.

Mr. G. W. Erskine complained that the L. E. & W. R. R. Co. did not have tickets on sale at its office at Handy, a junction point with the C., I. & S. Railroad, and that passengers were unable to check baggage and were inconvenienced thereby. The matter was taken up with the company and is pending adjustment.

A. R. No. 1248. Depot Facilities.

Complaint made from Collett, Ind., of inadequate depot facilities at that town. Matter taken up with the superintendent of the

G. R. & I. Railway, who responded that Collett was a small flag station and he was not aware that the people had any complaint, as none had ever reached his office. The matter was taken up by the railway company for investigation, however, and is still pending at the time of this report.

A. R. No. 1249. Reparation of Freight Claims.

Inquiry from the general counsel of the Southern Railway as to what the Railroad Commission of Indiana would do in cases concerning the reparation of freight claims. The Commission responded as follows: "The Commission does not desire to make a general ruling in cases of this kind. If you will submit the claim and all the facts concerning it, we will advise whether the Commission could or would authorize reparation in the particular case." Nothing further being heard, the case closed.

A. R. No. 1250. Movement of Shelled Corn.

Mr. O. O. Newhard wrote the Commission requesting to know the duty of a railroad company to move shelled corn. The Commission responded, calling attention to Section 3 of the Acts of 1907, p. 435, which provides that all freight shall be moved a distance of not less than fifty miles per day, allowing twenty-four hours for passing through terminals, and the case closed.

A. R. No. 1251. Excess Fares.

Complaint made of fares on T. H., I. & E. Traction line at Reelsville. Matter taken up with the traction company, and pending adjustment.

A. R. No. 1264. Delay in Transportation.

Merchants' Heat & Light Company complained to the Commission that transportation of coal from the coal belt of Indiana to Indianapolis consigned to them was so delayed that there was grave danger of that company being without coal and therefore without power to afford heat to its many patrons in the city of Indianapolis. This matter was promptly taken up by the Commission by long distance telephone both with Mr. J. C. Muir of the E. & T. H. at Danville, Ill., and of Mr. Houghton, general superintendent of the C., C. & St. L. at Indianapolis. The first complaint of the company involved thirty-five earloads which were hurried to Indianapolis and reached here before the Merchants' Heat & Light Company

were entirely without coal. Afterwards there were further delays on account of the very cold weather, and the Commission thought it best to send its chief inspector, J. M. Scott, to Terre Haute to remain there in order to expedite the movement of coal to Indianapolis and to points farther north in the State, both for the public service corporations and for other persons. The inspector took this matter up promptly and made the following report to the Commission with reference thereto:

HON. W. J. WOOD, *Chairman, Railroad Commission of Indiana, Indianapolis, Indiana:*

Dear Sir—Referring to conference held in your office on the morning of Saturday, January 13, 1912, with the manager of the Merchants' Heat & Light Company, the fuel agent of the Jackson Hill Coal & Mining Company, and your chief inspector, with reference to the shortage of coal at the Merchants' Heat & Light Plant, the probability of this plant having to close down unless the Commission could arrange to have coal consigned to this firm rushed to Indianapolis, some of this coal having been billed from mines located on the C. & E. I. R. R. and C., T. H. & S. E. R. R., in the Sullivan County district, this coal traveling to Terre Haute over the lines mentioned coming to Indianapolis from Terre Haute via C., C. & St. L. Ry., the billing showing that some of these cars had been placed in the railroad company's hands for movement as early as January 5, 1912. Twenty-five cars of this coal from the C. & E. I. and fifteen cars from the C., T. H. & S. E. had not, according to information given by the Jackson Hill people, been delivered to the Big Four at Terre Haute. I secured numbers and initials, date of shipment of all coal in transit for the Heat & Light plant and the numbers of about fifty other cars consigned to the Atlas Engine Works, F. O. Minter Coal Company, F. E. Jeness Coal & Grain Company, American Can Company, Indianapolis Chair Company, F. E. Fultz, and J. T. Dunn, coal dealer, and with this information went to Terre Haute at noon, Saturday, January 13, 1912, with instructions from you to see that coal for the Merchants' Heat & Light Company (this being a municipal plant) was given preference, and that all other coal consigned to Indianapolis firms be rushed through to destination. You arranged over the long distance telephone for a conference to be held in the trainmaster's office of the C., C. & St. L. Ry. Co.'s office at Terre Haute at 10:00 a. m., Sunday, January 14, 1912. The lines interested to be represented at this conference. I got the list of cars in transit to the various yardmasters at Terre Haute on the evening of January 13, and at the conference on Sunday morning the lines interested had information showing the whereabouts of the majority of the cars. General Superintendent Wells was present for the C., T. H. & S. E., Superintendent Bell of the C. & E. I. and Trainmaster Lamport for the C., C. & St. L. Ry. Co., and the yardmasters of the lines interested were also present. Mr. Wells, for the C., T. H. & S. E. advised that a light engine and a caboose had been started for the coal fields early that morning with a list of the cars wanted, and instructed to switch them out wherever found and bring

them to Terre Haute for delivery to the Big Four. Mr. Bell for the C. & E. I. advised that the car numbers had been sent to the yardmaster at Seifert with instructions to move these cars that day without fail, and stated that his company expected to clear the line of coal not later than Monday, the following day. I was able to get most of the coal billed to the Merchants' Heat & Light plant into Terre Haute, and through to Indianapolis between the 14th and 18th of January, and it was not necessary to close down the heat and light plant. I remained in the Terre Haute district four or five days in order to keep this important coal coming, and found the railroads very willing to render all assistance possible. From January 8 to January 18, 1912, can undoubtedly be put down as the worst ten days of operating weather that steam lines have had to contend with in this territory for a great many years. The temperature very seldom got above zero and went as low as 16 degrees below. We had about 8 inches of snow on the level at Terre Haute, and in the mine districts it was from 12 to 15 inches on the level and had drifted over some of the mine tracks until it was next to impossible to operate them at all. The regular forces of the railroads worked until they were worn-out; men were employed as fast as they showed up for work, but the companies were simply not prepared for the kind of weather we had; water-tanks and switches would freeze up, engines would freeze fast to the track while taking water; it would require two engines to place two cars of coal on the coal dock where ordinarily one engine could shove up six cars. On account of the slow movement of trains it was necessary to practically double-crew every engine and caboose, and instead of being able to employ train and enginemen, the "boomer" brakeman and fireman turned in his switch-key and book of rules and took his time. There are several things to be considered in connection with future cold weather and coal shortages in connection with the railroad companies. First, they should appreciate more than they seem to have appreciated in the past that with bitter cold weather it is absolutely necessary to keep coal coming from the mines to the industrial centers, and for that reason they should put forth an extra effort, throwing their heaviest power in the mine district, putting on additional men to keep the mine tracks from getting snow-bound, and if necessary embargo connecting lines on through freight with the exception of coal until the crisis has been passed. Second, they should look after the movement of empty coal cars and see that every mine is supplied during the extreme cold weather in order that tonnage enough may be loaded to take care of the people's wants. I am afraid that heretofore it has been the practice to shut down a few mines if necessary and take care of the connecting lines instead of running all the mines and shutting down on connections. The experience we have gone through recently should also teach our heavy consumers of coal to create a larger storage capacity so that the first four or five days of cold weather will not bring the cry of "shut-down" to the Commission.

Respectfully submitted,

J. M. SCOTT,
Chief Inspector.

APPENDIX IV.

Report of Tariff Department.

DEPARTMENT OF TARIFFS AND RATES.

INDIANAPOLIS, December 1, 1910.

To the Railroad Commission of Indiana:

GENTLEMEN—The work of this department has materially increased and broadened and in a way which it is believed has been of benefit to the interests with which it deals. This is based upon the fact that during the past year nearly two thousand cases alone have been handled under the file of this department, that is, the D. T. file or docket. During this period nearly as large a number of that file has been used as in the time prior to this year that this department has been in existence. From the date of its organization to December 1, 1910, this docket numbered 2,190 cases; at the closing of the year for which this report is made it numbered 4,182, indicating that a total number of 1,992 cases have been handled under this file alone. In addition to this quite a number of cases handled in this department are necessarily handled under formal docket numbers, such for instance, as long and short haul applications and others that develop under that docket or are found necessary to be handled under same. This is also true with the Adjustment Record or docket.

While in the cases referred to a great many numbers are given to the concurrences and powers of attorneys filed by the carriers, the proper recording, filing and correction of entails considerable work. With this exception these file numbers represent the correspondence of the department, and I believe that this statement properly indicates the extent that the work of the department in this line alone has increased.

Another matter worthy of consideration in connection with this is the increasing number of telephone quotations and conferences, not alone with the shippers but also with the representatives of the carriers. A great many authorizations and permissions, such as the filing of tariffs on less than the statutory notice, relief from rules of the Commission under conditions permitting and permissions to make refund where such may legally be made are given over the telephone. It is appreciated that a record of this would be valuable, but it would require additional labor that cannot be given without neglecting matters of more importance.

And then the personal conferences with the shippers and carriers are becoming more numerous. These usually are of informal cases, in fact, principally in the nature of advice as to the minor differences as to rates and the application of tariffs that arise between carrier and shipper and as to the reasonableness or unreasonableness of rates, usually resulting in correspondence subsequently.

It is of course to be expected that this work will increase more and more as the public becomes informed as to its value, and the foregoing is only elaborated on that the Commission may understand that the current work so consumes the time of the two employed in the department that work of an instructive or initiatory nature cannot be done. There are a great many matters of adjustment and regulation that it is believed should

be taken up by this department, at least in a general way, but as stated it would entail a labor that the department cannot bear, and the agents of the carriers as well as the shipping public seem woefully ignorant of what is required of them in the transportation problem, and it is believed that it would be a great benefit to both if those who are not properly informed could be furnished with information that should be theirs.

It is the intention of the department now to incorporate in the tariffs bulletins, which are issued monthly and contain information as to the important changes in rates, the orders and decisions of the Commission pertaining to the work of the department, and from time to time to include such matters as may be of interest to those for whom this bulletin is issued, such as the statutes relating to this department and the interpretations thereof by the Commission and procedure necessary on the part of such persons as desire their application. This could be made a very valuable record to the Commission as well as a source of information, and it will be the intention to make it as much so as possible.

As our last report dealt with the general advance in rates throughout this territory and State proposed by the carriers, and which at the date of report were under suspension and investigation by the Interstate Commerce Commission as far as concerned the interstate situation, and which were also suspended by the carriers at the request of this Commission as to the State rates, the Commission at that time not being empowered to require such suspension, it is considered proper that the conclusion of that matter should here be shown.

Our previous report indicated in a general way fully the rates sought to be advanced and we attempted in that way to indicate the result of such proposed increase. As is now of course known, the Interstate Commerce Commission found unwarrantable any increase, as a whole, of the rates existing prior to the attempted advance and ordered that the old rates should remain in effect. This order was not contested by the carriers and the old rates were reinstated, both as to State and interstate. This refers to the rates then under suspension other than coal, which in the former report were shown that certain advances had been allowed and made effective.

So, the rate situation in this State now is practically that which has existed, the changes ordinary and necessary to the general business of course having occurred, but there has been neither substantial increase or decrease in transportation charges, excepting the rates on brick. On this commodity, as will be recalled, the carriers greatly increased the charges for transportation. Prior to the effective date of tariffs carrying such change various manufacturers of this article appealed to the Commission to prevent this increase, or to investigate the matter before permitting the advance, they stating to the Commission that it was not justifiable. At this time the act of the last Legislature giving to the Commission authority to suspend and investigate changes in rates had not become effective, and the petitioners were so advised, but the Commission in order to aid the parties petitioned the Interstate Commerce Commission to suspend the advanced rates and to investigate the reasonableness of same. That commission did suspend the rates for a period of one hundred and twenty days, and the carriers issued supplements to their tariffs indicat-

ing that the rates, both State and interstate, would be postponed for that length of time, and in addition to this the carriers in a number of cases wrote and otherwise advised the brick manufacturers of the suspension. This was accepted by the manufacturers as positive and a large number of contracts were made for the delivery of brick on the basis of the old and lower rates. A few days after this suspension notice was given the carriers appealed to the Interstate Commerce Commission to reconsider and vacate its order of suspension. This, after hearing, which we understand was attended by the brick people through counsel, was done and the postponement abrogated but a few days after ordered.

This action worked a great hardship upon the people shipping this article, they having been given to understand that the old rates would remain in effect for quite a period and having based the sales of a quantity of brick on the assumption that it would be the case. Had they not been of this opinion the advanced rates would not have been the cause of actual loss to them, as in their sales such increased rate would have been considered, although of course such increase so far as it relates to the State may have been found to be unreasonable.

We go into this so fully for the reason that some of the brick manufacturers seem to have formed the opinion that the action of the Interstate Commerce Commission in this matter was that of this Commission and while the action of the Interstate Commission may have been proper such may not have been with regard to Indiana State rates and with regard to which this Commission was not empowered to take any steps until such rates had been made effective and charged.

In the above is mentioned an act of the last Legislature which empowered the Commission to suspend and investigate changes in rates. This power has been used by the Commission in several cases, and as they were handled under the regular docket no reference is made to them in this report, as it is supposed they will be dealt with in that part of the Annual Report under which the cases of that docket appear. But we desire to call attention to the necessity of a closer scrutiny of tariffs required of this department in order that where necessary this valuable power may be exercised to prevent advances in rates that are not justifiable.

Through this department the Commission has been very successful in effecting refund of a great amount of overcharge in rates, caused principally through violation of the long and short haul clause of the act. It will be noted in that part of this report that deals with the work of the department specifically that a volume of the correspondence concerns this question. We have also secured refund on a number of shipments moving in interstate transportation, as well as advising parties the steps necessary to be taken to secure refunds on such shipments. As will be noted in the report hereafter a good many cases of this kind have been handled.

During this year the entire file of freight, passenger and express tariffs have been checked in order that the file be complete and accurate. This has occasioned a great amount of work and correspondence, which of course is necessary, that the files be what they should.

We give hereafter an itemized statement of a great many cases handled by the department and the disposition of same. This does not include the numerous requests for authority to issue reduced rates on less than

statutory notice, for publications of the Commission and information concerning same, correspondence necessary in connection with improper filing of tariffs, rejection of such issues, et cetera, nor of various other subjects not dealing directly with charges, rules or handling of traffic.

We believe that with the foregoing and the itemized statement of cases hereafter the Commission can understand and be informed of the work of the department for the year.

The statement of the various cases handled follows.

Respectfully,

M. T. BRADY, Clerk.

D. T. 2126. Switching. Complaint of Cochran Coal Co., Indianapolis. November 8, 1910. Overcharge in switching car of coal from Big Four to Vandalia and then reswitched to another industry, charges assessed on basis of industrial switching. Held that this charge was erroneous and that correct charge would be upon basis of reconsignment.

D. T. 2187. Salt. C. J. Gardner, Indianapolis, complained of overcharge on shipment of salt from lake ports via boat transportation and P., C., C. & St. L. Ry. to Indianapolis. Tariffs covering movement not on file and complainant referred to Interstate Commerce Commission.

D. T. 2188. Grain. H. E. Kinney, Indianapolis, concerning refusal of Vandalia Railroad to deliver grain billed "straight" without surrender of original bill of lading. Investigation misunderstanding upon part of the agent of the Vandalia, who was of the opinion that car was to be reconsigned.

D. T. 2191. Classification. Tariff filed by the C. I. & S. R. R. governed by western classification. The law requires that the classification must be uniform and the official classification having been adopted, tariff was rejected and new tariff governed by proper classification required.

D. T. 2194. Grain. Violation upon the part of C. I. & L. Ry. in charging on shipment of grain Chalmers to Barnard 10 cents per hundred pounds, whereas rate to Cincinnati was 8 cents. Refund to that basis required in accordance with the long and short haul clause of the law.

D. T. 2195. Switching. Complaint Krell-French Piano Co., New Castle, of C., C., C. & St. L. Ry. declining to absorb switching charges on coal handled under manufacturers' rate when arriving via C., C., C. & St. L. Ry. when for delivery to L. E. & W. R. R. Arrangements made whereby coal could arrive via L. E. & W. R. R.

D. T. 2196. Logs. Goshen Veneer Co., Goshen, Indiana, overcharge on shipment of two cars of logs from Mill Creek to Goshen, via Grand Trunk Railway and L. S. & M. S. Ry., sixth class rate of 8 cents charged. Refund to basis of Commission's recommended scale of 4.4 cents per hundred pounds.

D. T. 2198. Logs. Request Goshen Veneer Company, Goshen, Ind., for information concerning rates and rules governing handling logs from stations in southern Illinois to Goshen. Information secured and furnished.

D. T. 2199. Logs. American Fork and Hoe Co., claim for overcharge on shipment of logs from Berne to Fort Wayne. Refund of charge in excess of Commission's scale of log rates authorized.

D. T. 2200. Cement. Complaint Wabash Portland Cement Co., Detroit, Mich., that C., I. & L. Ry. violated long and short haul clause in regard to rates from Bedford and Mitchell to points intermediate to Michigan City. Correction required.

D. T. 2201. Brick. Complaint of rate on brick from Crawfordsville to Brookston. Unable to secure reduction desired and petition having been filed seeking to have Commission make an order reducing such rate, papers were transferred to formal file No. 438.

D. T. 2237. Scrap Iron. Alexander Lippman, Valparaiso, complaint of rate on scrap iron from North Judson to Valparaiso. Rate charged found to be rate lawful in effect and not authorized to order any lower rate applied.

D. T. 2244. Apples. E. Routh and Co., Mt. Olive, Ind. Rate on apples from Mt. Olive and Williams to Terre Haute charged 13½ cents. Found rate of 10 cents from Bedford to Terre Haute, to which this movement was intermediate and refund authorized to basis of that rate.

D. T. 2245. Steel. Attica Bridge Company, Attica, Ind., complained of rate on structural steel from Attica to Lake Village, combination of local rates having been charged. This was found to be the lawful rate in effect, but subsequently through joint rates established.

D. T. 2251. Class Rates. Mishawaka Woolen Mfg. Co., Mishawaka, Ind., complained of absence of through rates from Whitaker

to Mishawaka, via Vandalia and L. S. & M. S. Railroads required to establish necessary rates.

D. T. 2256. Switching. Complaint of Smith Transfer Co., Mitchell, Ind., of switching assessed. Report made to Commissioner McClure, who concluded matter under A. R. file.

D. T. 2257. Scrap Iron. National Rolling Mill Co., Vincennes, Ind., complained of violation long and short haul clause in rate on scrap iron Anderson to Vincennes, the rate from Muncie being lower. Investigation developed that shipment moved via Mt. Carmel, Ill., and being interstate, the Indiana law would not govern.

D. T. 2291. Logs. Tessellated Flooring Co., Edinburg, Ind. Overcharge on shipment of logs from Nabbs to Edinburg, via B. & O. S. W. R. R. and P., C., C. & St. L. Ry., sixth class rate having been charged. Carriers refused to apply Commission's scale of recommended rates. However, lower rate was obtainable on combination of local and refund to that basis required.

D. T. 2293. Logs. Tessellated Flooring Co., Edinburg, Ind. Overcharge on shipment of logs from Rugby to Edinburg. Similar to case D. T. 2291 and same adjustment made.

D. T. 2294. Logs. Tessellated Flooring Co., Edinburg, Ind. Overcharge on shipment of logs from Marklesville to Edinburg. Similar to case D. T. 2291 and same adjustment made.

D. T. 2295. Logs. Tessellated Flooring Co., Edinburg, Ind. Overcharge on shipment of logs from Adams to Edinburg, Ind. Similar to case D. T. 2291 and same adjustment made.

D. T. 2296. Logs. Tessellated Flooring Co., Edinburg, Ind. Overcharge on shipment of logs from Kennard to Edinburg. Similar to case D. T. 2291 and same adjustment made.

D. T. 2336. Logs. Complaint Hoosier Vencer Co., Ladoga, Ind., of rate on logs from Merom to Ladoga, Ind. Unable to secure application of the Commission's scale of rate.

D. T. 2369. Petroleum. Indiana Pipe Line Co., Oil City, Pa., of rate on crude oil from Riley to Selma, Ind. Overcharge occasioned by error in tariff publication and refund authorized to recognized basis.

D. T. 2370. Buggies. Complaint Harper Buggy Co., Columbia City, Ind., concerning classification of storm buggies. Inves-

tigated with chairman of the Official Classification Committee and complainant advised concerning same.

D. T. 2466. Milk and Cream. Complaint Judson Creamery and Produce Co., North Judson, Ind., about advance in rates on cream proposed by the carriers. Interstate Commerce Commission petitioned and advanced rates suspended and investigated, resulting in increased rates not being permitted to be made effective.

D. T. 2475. Request Herman Tapp Construction Co., Fort Wayne, for information relating to demurrage rules in the State. Advised concerning uniform demurrage rules and their application.

D. T. 2581. Joint Through Rates. Mishawaka Woolen Mfg. Co., through the Indiana Mfrs. and Shippers' Assn., regarding absence of through rates between stations on the Chicago, South Bend and Northern Indiana and the Winona Interurban traction lines. Requested the interurban lines to establish rates desired, the Commission not being empowered to require such rates. They refused to do so, stating that they were not equipped to handle such business.

D. T. 2582. Logs. C. & W. Kramer Co., Richmond, Ind. Rate on logs from Frankton to Richmond, Ind., complained of, sixth class rate having been charged. Rate of 5 cents in effect from Curtisville to Richmond and point of origin being intermediate that rate required to be charged, necessary refund being made.

D. T. 2584. Water in Tank Cars. Jackson Hill Coal and Coke Co., Terre Haute, complained of rate charged on water. Found rate charged that legally in effect and Commission unable to afford any relief. However, reasonable rate for other shipments established.

D. T. 2584A. Logs. Goshen Veneer Co., Goshen, Ind., complained of overcharge on shipment of logs from Pine and Lakeville to Goshen, via Wabash R. R. and C., C. C. & St. L. Ry., sixth class rate having been charged. Refund secured to basis of Commission's recommended rate of 3.85 cents per hundred pounds.

D. T. 2585. Fertilizer Material. Clendenin Fertilizer Co., Richmond, Ind., requested that the Commission assist in having adjusted the rate on potash from New Orleans to Woodford and Hagerstown, Ind. Considerable correspondence had with the P.

C., C. & St. L. Ry. and Southern lines interested in movement. Matter now under advisement.

D. T. 2587. Cattle. C. A. Beard and Son, Oakton, Ind., complained of rate and weight on shipment of cattle, Bloomington to Oakton. Report made to Commissioner McClure and matter handled under A. R. file.

D. T. 2631. Coal. Complaint Laporte Carriage Co., Laporte, regarding rate on coal from Linton Fields to Laporte. Report of matter made to chairman of the Commission, who handled to a conclusion.

D. T. 2813. Rates. Request various carriers to be permitted to further postpone general advance in rates suspended by the Interstate Commerce Commission to March 15, 1911. Request granted. Subsequently, as shown in another part of this report, the Interstate Commerce Commission refused to permit advanced rates to become effective.

D. T. 2814. Grain. Oscar Jay, attorney at Goshen, Ind., for Coppes, Zook and Mutschler Co., Napanee, regarding B. & O. R. R. violating long and short haul clause of the law. Advised concerning application of the law. However, violation had been removed by the railroad.

D. T. 2819. Grain. Paoli Milling Co., Paoli, Ind. Complaint that rates Louisville to Paoli, Ind., higher than in reverse direction. Explained to complainant and that relief could only be had through Interstate Commerce Commission.

D. T. 2825. Lime. L. E. & W. R. R. petitioned to be permitted refund on 13 cars of lime from Portland to Richmond, Ind., via L. E. & W. and C., C. & L. R. R., account error in not showing in tariff the C., C. & L. as concurring carrier. Report made to the Commission, who handled under A. R. file.

D. T. 2891. Butts. Evansville Mfg. Co., account Evansville Tool Works. Rate on hickory butts from Rahms to Evansville. Sixth class rate charged. Commission held that rate of 2½ cents applicable on logs should be applied.

D. T. 2893. Lumber. Hackedorn Construction Co., Indianapolis. Less carload shipment of lumber billed at carload rate and minimum weight, causing overcharge. Refund made to basis of less carload rate and actual weight.

D. T. 3011½. Cattle. French Bros., Brookston, Ind. Charge on shipment of several trainloads of stock cattle from South Omaha to Brookston, Ind. C. & N. W. R. R. quoted 75 per cent. of the fat cattle rate as applicable to stock cattle. Such rate was in effect via other lines, but investigation, including visit to their general offices in Chicago and considerable correspondence with Interstate Commerce Commission, developed that such rate was not lawfully in effect via C. & N. W. R. R. Complainant so advised and suggested that charges be paid and claim for reparation filed for refund, the lower rate subsequently having been published.

D. T. 3127. Perrine Armstrong Co., Fort Wayne, Ind., complained of rate on logs from Petroleum to Fort Wayne, Ind., via C., B. & C. and L. E. & W. R. R. No joint rate in effect and lowest combination as charged found to be only rate in effect, the carriers refusing to apply Commission's scale.

D. T. 3140. Sawdust. Gus Rusehmeier, Evansville, complained of rate charged on shipment of sawdust from Griffin to Evansville, via I. & C. R. R., of 7 cents per hundred pounds. Lawful rate in effect and Commission not authorized to permit application of any other.

D. T. 3141. Merchandise. Geo. H. Dale, Cicero, complained of rate charged on less carload shipment of merchandise from York, Pa. Found that tariff rate had been applied, and complainant so advised.

D. T. 3222. Lumber. Vandalia Railroad request to refund Parry Mfg. Co., Indianapolis, overcharge on shipment of lumber from Flora to Indianapolis, occasioned through error of railroad in forwarding via route over which higher rate prevailed. Authority granted.

D. T. 3226. Grain. Canal Elevator Co., Peru, Ind. Rate on grain from Lawton to Chili, Indiana, via C., C. & L. and Vandalia R. R. Found that rate of 11 cents charged, based on combination of local rates, was correct rate to apply. Subsequently through joint rates were established.

D. T. 3228. Lumber. Indiana Hardwood Lumbermen's Association, Richmond, Ind. Request for information concerning proposed advance in rates and what effect such advance would have on lumber. Advised.

D. T. 3256. Grain. Correspondence with W. H. Small and Co., Evansville, concerning milling in transit privilege at Evansville of grain from Chicago and other territory destined to Baltimore and Virginia cities. Commission endeavored to secure desired privilege through correspondence with carriers, but was unsuccessful and suggested that petition be filed with Interstate Commerce Commission.

D. T. 3266. Petition of various railroads to be permitted to suspend tariffs naming general advances in rates, and other correspondence relating thereto.

D. T. 3391. Lumber. Complaint of Louis Rastetter, Fort Wayne, Ind., of Vandalia having in effect two different rates on lumber from Churubusco to Fort Wayne, the rate via which shipment moved being higher than via another route. Advised that carriers were not required to meet competition of a shorter line and that it was duty of shipper to ascertain prior to shipment the lowest rate and routing. Further advised that if desired and necessary the Commission would investigate the necessity of rates via the route over which higher rate applies.

D. T. 3392. Logs. Chas. H. Barnaby, Greencastle, complained of advance rates on logs from Vandalia stations to Greencastle. This tariff was suspended, together with other tariffs referred to in report and complainant so advised.

D. T. 3416. Weighing. Indiana Rolling Mill Co., New Castle, Ind., concerning C., C., C. & St. L. Ry. assessing charge for weighing cars when such weighing developed error in billed weight. This similar to case of the Citizens Gas Company, case No. 445. Formal Docket, and was handled in conjunction with that case.

D. T. 3471. B. R. Whitecomb, Clinton, Ind., complained of switching charge of C. & E. I. R. R. on car of brick at Clinton, when coming from Cayuga. Found that under tariff charge was legally applicable. So advised complainant.

D. T. 3472. Corn. Cottrell Bros., Atherton, Ind., regarding charge on carload of corn from Dewey to Ehrmandale, of $5\frac{1}{2}$ cents as compared with $4\frac{1}{2}$ cents Terre Haute to Brazil. Found that carrier was relieved from application of long and short haul clause of the law account of its line being longer between two common points than that of another.

D. T. 3473. Coal. Vandalia Coal Co., Indianapolis, regarding car of coal from Andromeda to Sandusky, Ind. No through rate in effect and Indianapolis combination assessed. Found Victoria combination afforded a lower rate and refund to that basis made.

D. T. 3491. Switching. Complaint Worth-Huskey Coal Co., Indianapolis, of charge for switching car of coal at Elwood. Industrial switching of 20 cents per ton charged. Commission held that as shipment had enjoyed road haul that industrial switching was not proper and that reconsigning charge of \$3.00 was proper.

D. T. 3513. Lumber. Vandalia Railroad to be permitted refund on shipment of lumber Hibbard to Michigan City, via South Bend and M. C. R. R., to basis of lower rate Plymouth to Michigan City. Found that long and short haul clause was not applicable to movement and request denied.

D. T. 3515. Live Stock. Independent Ice and Fuel Co., Richmond, Ind., complained of weight assessed on less carload shipment of live stock. Found that weight and rate assessed in accordance with classification and tariff lawfully filed.

D. T. 3523. Passenger Fare. Complaint G. Hartman Bright, Argos, Ind., of passenger fare Argos to South Bend and in reverse direction being different. Found that two-cent fare law was being complied with and complainant so advised.

D. T. 3536. Poultry. Hadley Poultry Co., Seymour, Ind. Rate on poultry and eggs, less carload, Kurtz to Seymour, Ind. Found that rate exceeded that in effect from Bedford to Seymour and refund required to basis of Bedford rate.

D. T. 3611. Brick. Various brick manufacturers in State petitioned to have advanced rates proposed by carriers on brick suspended and investigated. Commission at that time not empowered to do so, but petitioned Interstate Commission, which suspended rates applying on interstate shipments and the railroads agreed to suspend State rates in like manner. A few days after tariffs were suspended the Interstate Commission vacated its order of postponement and advanced rates went into effect.

D. T. 3612. Coal. Complaint T. J. Taylor, Lafayette, concerning charge assessed on car of coal from West Virginia to Sedalia and there reconsigned to Moran. Found that reconsignment involved back haul and that tariff rate had been assessed.

D. T. 3614. Fertilizer. Complaint E. Rauh and Sons, Indianapolis, concerning charge on less than carload shipment of fertilizer Indianapolis to Spiceland, Ind., via L. E. & W. R. R., via which route rate was $12\frac{1}{2}$ cents, whereas rate via another line 8 cents. Tariff rate was applied and Commission not empowered to authorize application of lower rate.

D. T. 3633. Coal. Blish Milling Co., Seymour, Ind., concerning advance in rates on coal from Linton District to Seymour and Bedford. Rates at that time were under suspension, but subsequently were made effective, together with other advances in coal rates.

D. T. 3634. Vehicles. Fehring Carriage Co., Columbus, Ind., concerning shipment of buggies from fair grounds to Edinburg, charged 55 cents per hundred pounds. Found rate of 37 cents per hundred pounds obtainable, using combination of locals, and refund made.

D. T. 3636. Household Goods. J. K. Moss, Ashboro, regarding rate and damage to shipment of household goods from Ashboro to University Heights, Indiana. Matter now undergoing investigation.

D. T. 3637. Hay. Long and Sinclair, Cloverdale, Ind., concerning rate on hay from Cloverdale to French Lick, rate of $13\frac{1}{2}$ cents having been charged. Found that rate of $11\frac{1}{2}$ cents published from Cloverdale to Jasper should apply, account intermediate movement. Refund made.

D. T. 3651. Coal. J. Wooley Coal Co., Evansville, Ind., complaining of rates on coal from Linton District to Clear Creek, Bloomington and other points in Stone Quarry district as compared with rates from mines on Southern Railway. Matter referred to Mr. R. A. Campbell, of the Southern Railway, for adjustment.

D. T. 3658. Drain Tile. J. C. Vanatta, Brookston, Ind., complained of absence of through rates from various points to stations on the C. & W. V. R. R. Found that rates were published with the exception of from one point complained of and advised that if necessary would take up the question of establishing rates from that point.

D. T. 3695. Coal. Bloomingdale Clay Co., Bloomingdale, Ind., complained of rate of 55 cents on coal to Bloomingdale as com-

pared with rate of 50 cents to Indianapolis. Explained conditions entering into the establishment of lower rate to Indianapolis, not existing at Bloomington.

D. T. 3696. Brick. Request M. S. Connelly, general freight agent, P., C., C. & St. L. Ry. be permitted refund on movement of brick from Gas City to Elwood, account brick not having been included, through error, in tariff naming rate of 40 cents per ton on various commodities. Commission held that it had no authority to authorize application of any other than published tariff rate of $7\frac{1}{2}$ cents as charged.

D. T. 3698. Lumber. Request W. T. Stevenson, chief tariff bureau, C., C., C. & St. L. Ry., refund on shipment of lumber from Farmland to Bluffton. Found that rate Farmland to Fort Wayne of 6 cents per hundred pounds was correct rate instead of 8 cents as charged, account movement being intermediate to Fort Wayne.

D. T. 3709. Coal. Complaint Worth-Huskey Coal Co., Chicago, of rate on car of coal from Bicknell to Beech Grove, Ind., via Vandalia, Indianapolis and C., C., C. & St. L. Ry., rate of \$1.00 per ton having been charged. Found correct rate to apply 50 cents per ton to Indianapolis, plus 1 cent per hundred pounds switching charge to Beech Grove.

D. T. 3712. Logs. Coppes, Zook and Mutschler Co., Nappanee, Ind., complained of rates on logs from stations on L. E. & W. R. R. to Nappanee, the railroad having quoted sixth class rates. After conference with the railroad people, secured reduction to basis satisfactory to complainant.

D. T. 3714. Scrap Iron. A. Ciralsky and Son, South Bend, complained of rate of \$2.10 charged per ton on four cars of scrap iron from Wolcottville to South Bend, via Wabash and C. I. & S. R. R. Found that rate \$1.30 applied to South Bend in connection with roads other than C. I. & S. and that shipment was originally forwarded to be routed in connection with N. J., I. & I. R. R. which delivery consignees would not accept. Found that cars could have been reconsigned via another route at a charge of 40 cents for back haul, making through rate of \$1.70, and Commission held that rate should apply.

D. T. 3715. Indiana Coal Exchange, Indianapolis, complained of rate of \$1.06 on coal from Farmersburg to Greenwood. Found this to be published rate based on Indianapolis combination. Com-

mission not authorized to require refund but secured the publication of rate of 78 cents, applicable to subsequent shipments.

D. T. 3722. Coal. Bierhaus Bros., Vincennes, Ind., regarding shortage in shipment of coal and delay in transportation. Advised Commission not empowered to handle matter of shortage but was advised course to pursue, and with reference to the delay in transit was advised of the Shippers' Bill.

D. T. 3717. Cement. Sandusky Portland Cement Co., Sandusky, Ohio, complained of absence of through rates on cement from Syracuse, Ind., to stations on the Pennsylvania Company. Railroad companies required to establish necessary rates.

D. T. 3730. Demurrage. Evans Milling Co., Indianapolis, inquired as to right of Indianapolis Union Railway in application of the average agreement plan to base its charges on calendar month or month in which unloaded. After considerable correspondence with Interstate Commerce Commission, American Railway Association, etc., it was found that the universal plan was to collect or to consider the month when settlement was made, disregarding calendar month, and to preserve uniformity the Commission held to this plan.

D. T. 3731. Stone. Request G. W. Davis, general freight agent, Vandalia Railroad Co., be permitted refund on shipment of stone from A. & C. Stone and Lime Co., Greencastle to Mount Comfort, Ind., account of rate through error having been increased from 50 cents to 60 cents per ton. Commission held that tariff rate was the lawful rate and that it had no authority to authorize any other charge.

D. T. 3732. Logs. Request E. C. Leavenworth, general freight agent, G. R. & I. Ry., refund on shipment of logs, on which sixth class rate had been assessed. Refund to basis of Commission's recommended rate authorized.

D. T. 3735. Bottles. Model Glass Works, Summitville, Ind., concerning shipment to Clarks Hill, for T., St. L. & W. delivery. Found that rate was applicable via this route and that switching would be absorbed to that plant via C., C., C. & St. L. Ry. if shipment moved via its line.

D. T. 3736. Logs. J. M. Buck and Co., Bluffton, Ind., concerning rate on logs from Cedar Grove, Brookville, Metamora and

Laurel to Bluffton. Only rate in effect sixth class rate, but upon request rates desired were published by C., C., C. & St. L. Ry.

D. T. 3737. Broom Corn. W. H. Surface and Co., Indianapolis, Ind., requested Commission to assist in having adjusted a claim for loss and damage shipment broom corn from Hutchinson, Kansas, to Indianapolis. Claim was forwarded to carriers and promptly settled.

D. T. 3738. Grain. Various shippers of grain at New Harmony complained to Commission of their grain being discriminated against account of Evansville being given milling in transit. Matter was taken up in conference with Illinois Central people and satisfactorily adjusted.

D. T. 3746. Scrap Iron. Simon Cook Company, Wabash, Ind., concerning L. E. & W. R. R. trying to collect from them undercharge occasioned by using a rate less than published. Advised that the tariff rate would have to apply and that it was the duty of the L. E. & W. R. R. to collect the amount of undercharge.

D. T. 3783. Rate on Logs. Complaint C. G. Kramer, secretary Indiana Hardwood Lumbermans' Association, Richmond, Ind., in behalf of Hoosier Veneer Co., Ladoga, Ind., account 6th class rates carried by the C., C., C. & St. L. on logs, Thorntown to Ladoga, and by the Vandalia R. R., Glenn, Ind., to Ladoga. Matter taken up with initial carriers and rates satisfactory to complainants secured.

D. T. 3790. Rate on Lumber. June 28th, a letter was addressed the tariff department, P., C., C. & St. L. Ry. Co., Pittsburg, Pa., calling attention to the rate on lumber, Edinburg, Ind., to Oakland City, Ind., being published at 8 cents per 100 pounds, and rate from same point to Evansville, Indiana, was 7 cents, Oakland City being intermediate. This discrimination was remedied by reducing rate to Oakland City to Evansville rate.

D. T. 3798. Charge for replacing cars. Complaint Mr. A. C. Sisson, Decker, Ind., that E. & T. H. R. R. demanded switching charge for moving car already placed to another place on same siding. Found that freight crew had placed car at usual place for unloading to patrons at Decker, and that their tariff provided for a charge for replacing cars. Complainant advised.

D. T. 3801. Vehicles L. C. L. Complaint Fehring Carriage Co., Columbus, Ind., claiming overcharge on shipment of buggies

erated from fair grounds to Rushville, Ind., via C., I. & L. and C., H. & D., rate charged 60 cents per 100 pounds. Found published tariff rate was 39 cents per 100 pounds, and refund authorized on this basis.

D. T. 3803. Rate on Cement. Inquiry Sandusky Portland Cement Co., Sandusky, Ohio, as to proper rate to apply on cement C. L., Buffington, Ind., to Indianapolis, the absence of rate from published tariffs of initial carrier causing a supposition of discrimination. Found the only lawfully published was in C. E. Fulton's Joint Agency Tariff at 7 cents per 100 pounds. Complainant advised, and correspondence closed.

D. T. 3811. Rates on Fertilizer. Inquiry S. Bash & Co., Fort Wayne, Ind., as to application of Commission scale of rates on fertilizer, whether based on short line mileage or actual mileage for which haul is made. Advised actual mileage on local movement, and on joint competitive business. Line having longer route usually meets short line rates, generally a matter to be settled by shipper in ascertaining rates and route.

D. T. 3814. Rate on Stone C. L. Request Erie Stone Co., Huntington, Ind., for publication of joint rates on stone from Huntington, Ind., to LaFountaine, Treaty, Speicers and Urbana, via Wabash R. R. and C., C., C. & St. L., and from Huntington to Urbana, Speicers and North Manchester, via Erie and C., C., C. & St. L. Satisfactory rates were secured. Erie Stone Co. advised.

D. T. 3826. Rate on Logs C. L. Request J. M. Buck & Co., Bluffton, Ind., for establishing joint rate on logs from Berne, Geneva and Hoagland to Bluffton, via the G. R. & I. Ry. on basis of Commissions' scale of joint rates on logs. G. R. & I. tariff officials appealed to for rates requested but they declined making less than rate 6 cents per 100 pounds. J. M. Buck & Co. advised. No formal petition presented to Commission and matter closed.

D. T. 3828. Logs C. L. Complaint Tessellated Flooring Co., Edinburg, Ind. Alleged overcharge on logs, Shirley, Ind., to Edinburg, Ind., via C., C., C. & St. L. Shipments moved under joint sixth class rate, 8 cents per 100 pounds. Found combination local rates made rate 7 cents per 100 pounds and refund authorized to this basis.

D. T. 3829. Brick C. L. Complaint Terra Cotta Tile and Brick Co., Brook, Ind., alleged overcharge on movement of car of

brick unused and returned Peru to Brook, at a rate of 8 cents per 100 pounds, as against a much lower rate on same, Brook to Peru. Investigated and found rate used was the lawfully published rate in effect and Commission without authority to order refund.

D. T. 3833. Change in Official Classification. This has relation to Supplement No. 5 to Official Classification No. 37 changing rules 15B and 15C, advancing minimum charge on small packages of freight from 25 cents to 35 cents, effective July 1, 1911. The effective date of this supplement was suspended by the Commission until July 31st, and on hearing indefinitely suspended. The Interstate Commerce Commission also suspended the effective date of these advances and question up for conference hearing.

D. T. 3835. Pipe, Iron and Steel. Petition of various roads operating in Indiana to restore former application or description of pipe iron and steel on one day's notice. Account failure to properly describe same in recent publications, was permitted by the Commission.

D. T. 3840. Advance in Rate on Coal. Informal complaint Bedford Industrial Association, account advance in rate on coal from Bedford Group to various points from 50 cents per ton to 55 cents. The question of this advance was presented to Mr. Carter, G. F. A., C., I. & L. Ry. Co., as to cause of advance and possibility of restoring the 50 cent per ton rate. His reply was received and substance transmitted to complainants, with suggestion that the Commission would entertain a formal petition for a hearing should the advanced rate not be satisfactory. No petition being presented, matter closed.

D. T. 3841. Inequality in Rates. Informal complaint Pulse & Porter, Greensburg, Ind., account apparent discrepancy in the sixth class rate Greensburg to Newport, and the rate in reverse direction. Found the rates as quoted in letter of complainants were the lawfully published rates. A conference was suggested to further discuss the situation. No formal complaint coming before the Commission, matter closed.

D. T. 3866. Switching Chicago District. Request various Indiana railroads operating in Chicago switching district to make correction in their switching tariffs affecting absorption of switching charges on coal and coke, reducing same in less than statutory notice, was permitted.

D. T. 3872. Rate on Coal. C., C., C. & St. L. Ry. issued tariff advancing rate on coal from Illinois mines to various points in Indiana, Illinois, and Michigan and Ohio under I. R. C. 1912 I. C. C. 5766, the Interstate Commerce Commission suspended the effective date of this tariff and the C., C., C. & St. L. issued supplement under this suspension. As this Commission had not authorized the suspension, the supplement was rejected. However, the C., C., C. & St. L. indicating that the rates here were carried in other tariffs so far as Indiana was concerned, and there being no advance in State rates, supplement was accepted and passed to our file.

D. T. 3873. Fertilizer L. C. L. Request L. E. & W. R. R. for authority to make refund in shipment fertilizer L. C. L., Indianapolis to Dunreith, Ind., via L. E. & W. to meet P., C., C. & St. L. short line rate. Found shipment moved under lawful published rate, and Commission without authority to authorize refund.

D. T. 3876. Storage of Logs. Complaint Goshen Veneer Co., Goshen, Ind., caused by L. S. & M. S. agent Carlisle, Ind. assessing storage charges on logs unloaded on railroad property awaiting loading, a privilege formerly without charge, and that this privilege had also been extended other shippers. Found, on investigation, that charges had been made under erroneous interpretations of the tariff, and refund was made by the L. S. & M. S. Ry. Co. to complainant.

D. T. 3876A. Logs C. L. Request Jas. Webster, A. G. T. M. Michigan Central Railroad, for authority to refund overcharge accruing on movement of logs from Warrick, Ind., to Goshen, Ind., occasioned by changing rate in error from 3 cents per 100 pounds to 4 cents per 100 pounds, between March 28 and June 19, when error was discovered and corrected. Held that as $3\frac{1}{2}$ cent rate was the published rate from a point beyond Warrick, a higher rate could not be charged from Warrick and refund was authorized on the basis of the $3\frac{1}{2}$ cent rate, Commission not being empowered to authorize refund to 3 cent rate.

D. T. 3884. Lumber C. L. Complaint C. & W. Kramer Co., Richmond, Ind., alleged overcharge on car lumber from Richmond to South Bend, via P., C., C. & St. L. Ry., rate used in billing, $10\frac{1}{2}$, was published tariff rate. Found rate from Cincinnati, O., to South Bend, via Richmond, was 10 cents per 100 pounds, and refund authorized on basis of 10 cent rate.

D. T. 3888. Sand and Gravel C. L. Refers to Supplement No. 6 to I. R. C. 346, issued July 25th, and effective August 6th, naming rate on sand and gravel from Fort Harrison and South Terre Haute to Bedford 42½ cents per net ton, applying as "terminal rate only." Commission held tariff must eliminate the restricting "terminal rate only," and allow rate to apply from any intermediate point.

D. T. 3890. Buggies, L. C. L. Complaint Rex Buggy Company, Connersville, Ind., account higher rate on buggies, in effect via the C., H. & D. from Connersville, Ind., to Mexico, Ind., than via the L. E. & W. or C., C., C. & St. L. Found that the rate used by the C., H. & D. was lawfully published rate. Commission without authority to authorize refund, however, matter taken up, and C., H. & D. reduced rate to meet that published by competing roads.

D. T. 3892. Watermelons, C. L. Complaint Peter Herberer, Evansville, Ind., account alleged discrimination in rate on watermelons from Upton to Evansville, Ind. Claim the L. & N. charge 11 cents per 100 pounds, as against 6 2/10 cents per hundred pounds from Epworth, Ill. On August 10th Commission received Tariff I. C. R. 64, effective August 12th, naming rate Welborn and Upton to Evansville, same as from Epworth, Ill., 6 2/10. Complainant advised of this rate and to present claim for any shipment on which higher rate had been charged.

D. T. 3893. Anthracite Coal, C. L. Complaint Greenwood Lumber Co., Greenwood, Ind., alleged excessive rate on anthracite coal, Buffalo, N. Y., to Greenwood, Ind., \$2.00 per ton, as against \$1.65 from Buffalo to Indianapolis. Found rates quoted to be the published tariff rates, the P., C., C. & St. L. receiving 35 cents per ton. The question of rate Indianapolis to Greenwood taken up with P., C., C. & St. L. and rate 28 cents per ton secured and published.

D. T. 3894. Shale or Clay, C. L. Complaint Wabash Portland Cement Co., Detroit, Mich., claiming excessive rate and weights on shipment of shale or clay from Steubenville, Ind., to Stroh, Ind. Weight charged being 10 per cent. above marked capacity of car used and rate 25 cents per ton. Found the rate charged lawfully published rate and weight billed covered by instructions to agents where cars could not be weighed, further provided for weighing of cars en route, and correct weight applied.

Complainant so advised, no further correspondence shown, and matter closed.

D. T. 3895. Mine Props. C. L. Complaint E. L. Jink, Tangier, Ind., and John Dobson, Cates, Ind., consignee and consignor. Cars mine props from Cates, Ind., to Westville, Ill., via T., St. L. & W., Ridge Farm and the C., C., C. & St. L. Ry. Claimed overcharge in weight, the billed lot being based on capacity of cars used, in this instance 80,000 capacity car used and no record of cars having been weighed. Matter taken up with T., St. L. & W. They agree to settle claim on basis of actual weight when same can be substantiated by shipper, with a minimum of 40,000 pounds.

D. T. 3897. Rate on Logs. Inquiry St. Joe Valley Mfg. & Shippers' Assn., Elkhart, Ind., regarding application of Commissions' scale of rates on logs, on shipments moving in 1908 and 1909 on rate in excess of this scale. Reply made that majority of roads operating in Indiana applied the Commission scale on local movement and a limited number in joint movement and recommended that claims be presented to the roads in interest based on the Commissions' scale of rates, both local and joint.

D. T. 3898. Rate on Coal, C. L. Complaint Hunter W. Finch & Co., Chicago, Ill., alleged overcharge on coal from Templeton, Ind., to Brook, Ind., via S. I. & C. and E. I. Rys. Rate used in billing 90 cents per ton, being the Terre Haute combination rate, claimed 80 cents per ton as covered by S. I. Ry., I. R. C. 318. Commission held that this tariff only covered the Queen Mine and not all the mines in the Linton District, as claimed, therefore refund could not be authorized.

D. T. 3899. Bottles, C. L. Complaint The Charles Boldt Co., Cincinnati, Ohio, claiming shipment of bottles, Muncie, Ind., to Fairmount, Ind., turned over by them to the L. E. & W. not routed (their plant being located on the L. E. & W.), was misrouted by the L. E. & W. in that they forwarded the car via their own line instead of turning same to P., C., C. & St. L. at Muncie for forwarding, the P., C., C. & St. L. having less rate than the L. E. & W. Commission not inclined to conclude this movement as being misrouted.

D. T. 3900. Live Stock, L. C. L. Complaint Mr. P. A. Moore, Mellott, Ind., claiming overcharge on shipment, 3 cows from Gilberts, Ill., to Mellott, Ind., via T., St. L. & W. and Veedersburg, the billing indicated earload minimum 20,000 pounds, and L. C. L.

live stock rate used. When billing should be 20,000 pounds at earload rate on estimated weight at L. C. L. rate, whichever would figure the less combination. Refund authorized on proper basis.

D. T. 3901. Rate on Logs. Complaint C. & W. Kramer Co., Richmond, Ind., excessive rate quoted on logs C. L., New Trenton, Ind., to Richmond, Ind., sixth class rate 7 cents per 100 pounds named. Correspondence had with G. F. A., C., C. & St. L. Ry., and rate satisfactory to complainants secured.

D. T. 3912. Circus Outfit. Complaint Greater United Shows, Chicago, Ill., account Vandalia R. R. charging for one car in excess of the contract at higher rate than those moved at same time under contract rate. Found additional car moved under lawful published rate and Commission without authority to authorize refund, the contract having been fulfilled.

D. T. 3913. Class Rates. Complaint W. M. Shafer Co., Frankfort, Ind. Alleged discrimination in class rates Frankfort, Ind., as compared with rate from Terre Haute for equal distance. One instance was shipment of sugar L. C. L. Frankfort to New Market 14 cents, as against rate $8\frac{1}{2}$ cents Lafayette to Flora, this was error in billing and refund authorized. Vandalia R. R. tariff officials now engaged in lining up rates with a view of eliminating these and other apparent discriminations as between points.

D. T. 3914. Violation Long and Short Haul Clause. This related to C., I. & L. I. R. C. No. 1350, tariff on manure C. L., Indianapolis to Raubs, \$1.00 per ton as a "terminal rate only." Commission held this a violation of long and short haul clause of statute, and that rate should include intermediate points. Tariff corrected accordingly.

D. T. 3917. Reconsignment charges. Complaint H. E. Kinney Grain Co., Indianapolis, account reconsigning charge assessed by the C., I. & L. on car feed Marshall, Minn., to Bartersville, Ind., of \$2.00 Found tariffs on file covered this charge and movement being interstate and not under this Commission's jurisdiction.

D. T. 3920. Rate on Coal. Complaint Indiana Condensed Milk Co., Sheridan, Ind., discrepancy in rates, Linton District Mines to various points 75 cents per ton as compared with rate 95 cents per ton from same district to Carmel, Sheridan and Kirklintown, via Vandalia and C., I. & L. Tariff officials agreed upon a reduction to 90 cents per ton, which was not satisfactory to com-

plainant, who presented a formal complaint, and on hearing, Commission made an order naming rate from Linton District Mines to Broad Ripple and Carmel, 75 cents; Sheridan and Kirklin, 80 cents per ton, and these rates published and now in effect.

D. T. 3924. Switching. Communication from Mr. A. D. Johnson, of the P. H. and E. M. Roots Co., Connersville, Ind., requesting to have name appear in switching tariffs on interested road at Connersville, covering movement of cars in and out new power house to be constructed as an extension to their furniture plant. This matter concluded under A. R. file through Commissioner McClure.

D. T. 3925. Coal, C. L. Request O. C. Carter, G. F. A. C., I. & L. Ry. for authority to refund overcharge on 8 cars coal moved from Victoria Mine to South Bend, Ind., via Otis and the L. S. & M. S. This routing carried a higher rate than via Shelby and the C., I. & L. and was an error of the C., I. & L. agent in misrouting under the statement as shown by the C., I. & L. The Commission authorized refund to basis of 90 cents per ton, the rate in effect via Shelby and the C., I. & L. R. R.

D. T. 3926. Rate on Logs—Switching. Complaint Ackerman, Bright Lumber Co., Wabash, Ind., covering rate on logs from Roann to Wabash, via Vandalia and C., C., C. & St. L. R. R., and refusal of C., C., C. & St. L. to handle cars for this firm, when coming from other roads. Reply was made quoting the published tariff rate on logs and advising complainants that the C., C., C. & St. L. would be compelled by the statute to receive cars tendered by other roads and switch same to their plant.

D. T. 3927. Bottles, Overcharge and Loss. Complaint Lapel Bottle Co., Lapel, Ind., account delay on part Central Indiana Ry. Co. settlement of claim for overcharge and damage on earload of bottles to Little Rock and overcharge on shipment to Boise, Idaho, a total of \$257.34. In answer to inquiry, the Central Indiana general freight agent advised that there was no basis for the claim of overcharge on the Boise shipment and that the claim in the Little Rock shipment would be hurried with all possible effort. The shipment being interstate, the Commission did not have jurisdiction. Claimant fully advised.

D. T. 3937. Rates on Grain. Complaint Jos. Emison, Vincennes, Ind., alleged discrimination in rates on milled-in-transit product as against rate on by-products Vincennes, Ind., to New

York and other eastern points. This question taken up with the roads in interest. It was ascertained that same complaint was before the Interstate Commerce Commission and under investigation. As the movement was interstate, this Commission was without jurisdiction, but would continue investigation in aid of complainants.

D. T. 3939. Rates on Coal. Complaint Domestic Block Co., Kokomo, Ind., account C. & E. I. R. R. mines to station in Illinois reached by the C., C., C. & St. L. Ry. Matter taken up with Mr. F. C. Reiley, G. F. A., C. & E. I. R. R., who advised effort under way for restoration of these rates, but not as yet definitely determined. As question involved was interstate, Commission was without jurisdiction.

D. T. 3940. Weighing Empty Cars. Complaint Citizens Gas Co., Indianapolis, Ind., account charge made by the I. U. Ry. Co. for weighing empty cars on complainant's scales at their plant, the contention being that as the railroad companies should furnish correct weight of contents of cars loaded, it could only be secured by weighing the cars empty, and that no charge should be made for this service. Petition being presented, the Commission heard evidence and issued order effective January 1, 1912, as follows: "That whenever respondent at the request of petitioner shall weigh empty cars on petitioner's track scales, no charge shall be made for such service, if such weighing shows an error in the stenciled weight of said cars of 500 pounds or more, provided, if the variance is less than 500 pounds, the charges set out in respondent's tariffs may be made."

D. T. 3943. Rate on Plaster. Complaint The Fishback Gypsum Co., Toledo, Ohio, account absence of joint rates on plaster C. L. from Fort Wayne, Ind., to Plymouth, Ind., via Pennsylvania Lines. Shipments moving under sixth class rate and commodity rate asked for. Matter presented to Pennsylvania Company and arrangements under way for publication of satisfactory commodity rates. Complainants advised.

D. T. 3948. Rate on Grain. Complaint Indiana Grain Dealers' Association, Indianapolis, through their secretary, Mr. Chas. B. Riley, account withdrawal of commodity rates on grain by the G. R. & I. Ry. Co. from certain points to Ohio River points, Jeffersonville, Madison, and New Albany. The supplement withdrawing these rates was suspended by the Commission and a hearing or-

dered. The G. R. & I. Ry., however, withdrew the supplement, restoring the rates formerly in effect.

D. T. 3949. Switching Charge. Complaint Corydon Hub Factory, Corydon, Ind., account switching charge of \$2.00 per car assessed by the L., N. A. & C. R. R. Co. Matter taken up with the company, who voluntarily agreed to discontinue making this charge, so far as State traffic was concerned.

D. T. 3950. Safeguarding to Order Bills of Lading. Communication from Mr. Chas. B. Riley, secretary Indiana Grain Dealers' Association, Indianapolis, relating to safeguarding order and notify bills of lading to prevent forgeries. Reply made that the Commission would be pleased to co-operate, and conference suggested. Matter now under advisement.

D. T. 3951. Class Rates. Letter from Valier & Spies Milling Co., St. Louis, Mo., calling attention to difference in class rates between given points via different roads, specifying Terre Haute to Owensburg, fifth class rate via C. & E. I. $8\frac{1}{2}$ cents, and via E. & T. H. $11\frac{1}{2}$ cents. Complainants advised that competing roads were not compelled to equalize rates. The particular case cited, however, was equalized by the C. & E. I. assuming control of the E. & T. H. and E. & I. roads.

D. T. 3952. Rate on Drain Tile. Request R. A. Campbell, G. F. A. Southern Railway, for authority to refund overcharge on shipment of drain tile Tell City, Ind., to Patoka, Ind., via Southern Railway and E. & T. H., sixth class rate used, refund based on combination commodity rate 4 cents Tell City to Princeton; 2 cents Princeton to Patoka. Commission authorized refund on combination rate.

D. T. 3953. Rate on Bottles. Complaint The Thompson Bottle Co., Gas City Ind., through Indiana Manufacturers' & Shippers' Association regarding rate on bottles C. L. Gas City, Ind. to McKeesport, Pa., via P., C., C. & St. L. for B. & O. R. R. delivery. Found no through rate in effect, Gas City to Pittsburgh, with local rate Pittsburgh to McKeesport, via B. & O. Movement interstate, and matter now before Interstate Commerce Commission. Complainants advised.

D. T. 3955. Rate on Bottles. Complaint B. B. Bottle Co., Spencer, Ind., account rate used in shipments of bottles, Spencer, Ind., to Avery Island, La., 71 cents per 100 pounds. Claimed rate

should be based on New Orleans. Spencer to New Orleans, 33 cents; New Orleans to Avery Island, La., 24 cents; through, 57 cents; investigated and found this rate should be 57 cents. As movement was interstate, complainant was advised to present matter of overcharge to Interstate Commerce Commission.

D. T. 3973. Rate on Grain. Complaint W. F. Small & Co., Evansville, Ind., account claimed excessive rate on grain, Bargersville, Ind., to Evansville, 9 cents per hundred pounds, as against six cents from Indianapolis. Found the movement was via Effingham, Ill., making it interstate, and not under jurisdiction of this Commission. Complainants advised of the Commission's willingness to take up with Illinois Central R. R. if desired. No further complaint. Matter closed September 19th.

D. T. 3975. Rates to Missouri River Points. Complaint Wayne Knitting Mills, Fort Wayne, Ind., and Marion Flint Glass Co., Marion, Ind., and others, alleged discrimination in rates to Missouri River points, as against rates from Chicago, and other Illinois points, to same territory. These complainants were advised that the Commission, while not having jurisdiction (the movement being interstate), they were cognizant of this rate situation, and in the interest of Indiana shippers has petitioned the Interstate Commerce Commission for a hearing and the establishment of more equitable basis of rates.

D. T. 3980. Rate on Watermelons, C. L. Complaint R. H. Pennington & Co., Evansville, Ind., alleged overcharge on shipment of three cars watermelons, Johnson, Ind., to Vincennes, Ind., made July 27, 28 and 29. The rate used was 10 cents per hundred pounds. On August 1st a commodity rate on watermelons of 7 cents per 100 pounds was published from Johnson, Ind., and the claim was based on this rate. As the rate used was the lawfully published rate at the time shipment moved, the Commission was without authority to authorize refund, and complainants so advised.

D. T. 3982. Rates on Sand and Gravel. Complaint Sand & Gravel Co., Terre Haute, Ind., asking for equalization of rate on gravel from Summit Grove, Ind., on C. & E. I. R. R., with rate on gravel from Fort Harrison, Ind., on the C., T. H. & S. E. Ry. Investigated and found conditions dissimilar. Fort Harrison being within switching limits of Terre Haute, and Summit Grove some twenty miles distant. These facts presented to complainants, who did not continue the matter further.

D. T. 3987. Rate on Anthracite Coal. Complaint J. V. Zartman, secretary Indiana Manufacturers' and Shippers' Association, relative to present effective rate on anthracite coal from the anthracite coal fields to Indianapolis, the through rate quoted being \$3.60 per ton. This rate on anthracite coal is complained of as out of proportion as compared with the current rate on bituminous coal from the West Virginia fields to Indianapolis. These movements being interstate, this Commission is without jurisdiction, but a conference was suggested with complainant to further consider the question of presenting the matter to the Interstate Commerce Commission in proper form.

D. T. 3990. Rate on Household Goods. Complaint Chas. B. Baker, Rushville, Ind., having settled freight bill on car household goods from Orleans, Ind., to Rushville, via C., I. & L. and C., H. & D. Rys., on billed rate of 23 cents per 100 pounds, or \$26.40. The C., H. & D. claiming an undercharge of \$3.60, it was found that the lawfully published rate via the route the movement was made was 25 cents per 100 pounds, but there was a joint rate of 23 cents via C., I. & L. and the C., C., C. & St. L., which should have been applied, provided the shipper did not direct the routing. Claimant so advised, and matter yet under investigation.

D. T. 3994. Rate on Coal. Complaint Richards & Sons, Terre Haute, Ind., alleged excessive rate used on movement of two cars from Coal Bluff to Crawfordsville, via C. & E. I. R. R. Complaint is based on old rate, which was advanced, and afterward reduced to former rate, the shipment being made during the period covered by the advanced rate and, that being the lawfully published rate at the time, the Commission was without authority to order refund.

D. T. 3995. Steam Road Rates vs. Traction Co. Rates. Inquiry from J. G. Hermann & Co., Indianapolis, Ind., as to rate Indianapolis to Zionsville, Ind., via the C., C., C. & St. L. being 5 cents per 100 pounds, as against rate via traction company at 7 cents per 100 pounds. Complainant was advised law did not demand equalization of rates by competing lines where they did not voluntarily meet competition, and that Commission did not have jurisdiction over traction line rates until freight earnings equalled $33\frac{1}{3}$ per cent. of the gross earnings.

D. T. 3996. Rates on Coal. Inquiry from the Clinton Coal Co., Chicago, Ill., as to application of through joint rates as com-

pared with distance tariff rates. Reply made that this Commission's rules were similar to those of the Interstate Commerce Commission, that distance or mileage rates apply only in the absence of specific rates and tariffs must make notation to that effect. A specific case in point was requested, and matter still open.

D. T. 3998. Logs, C. L. Complaint Townsend and Freeman, Indianapolis, alleging excessive rate used in shipment of logs from West Baden, Ind., to Seymour, Ind., via C., I. & L. and B. & O. S. W., sixth class rate 10 cents per 100 pounds applied. Investigated and found combination commodity rate in effect, based on Mitchell, $3\frac{1}{2}$ to Mitchell and $3\frac{1}{2}$ Mitchell to Seymour, and refund authorized on this basis.

D. T. 4000. Rate on Eggs, L. C. L. Complaint T. V. Albright, Shoals, Ind., account excessive rate on eggs L. C. L., Orleans, Ind., to Shoals, Ind., via C., I. & L. and B. & O. S. W. Joint through rate used, 26 cents per 100 pounds. Found combination local rates based on Mitchell made the rate 22 cents per 100 pounds and refund authorized by Commission on this basis.

D. T. 4008. Rate on Crushed Stone. This has relation to C., I. & L. Ry. Tariff I. R. C. 1358 naming rate on crushed stone, Lime-dale to Delphi, Ind., 60 cents per net ton not applicable to intermediate points. The Commission took exceptions to this restriction as a violation of the long and short haul clause of the statute, the tariff was corrected to 65 cents per ton. This method of correcting the matter did not meet the approval of the Commission, and the C., I. & L. was so advised. Their reply being satisfactory, tariff was allowed to stand at 65 cents per ton, as an emergency rate, soon to be withdrawn.

D. T. 4017. Household Goods. Complaint Rev. Alex. McLaughlin, Elkhart, Ind., claiming excessive freight charges paid in movement of household goods from Pearl City, Ill., to Elkhart, Ind., amount charged being \$62.40. It was found rate Pearl City to Chicago should be 20,000 pounds, 11 $\frac{7}{10}$ cents per 100 pounds; \$23.40 Chicago to Elkhart, actual lot 8,200 pounds at 24 $\frac{5}{10}$ cents per 100 pounds, \$20.09; through \$43.49, showing a refund due complainant of \$18.91. Consignee instructed to present claim for overcharge.

D. T. 4018. Industrial Switching. Complaint Klein Bros., Kokomo, Ind., account alleged excessive switching charge assessed by the P., C., C. & St. L. Ry. on movement of car from Pittsburgh

Plate Glass Co. plant to Ford & Donnelly. Found rate of 20 cents per ton used was published tariff rate and the Commission without authority to authorize refund. Klein Bros. advised, however, that if they consider the rate charged excessive, they had the right of petition for a hearing. No further correspondence had.

D. T. 4023. Rate on Coal, C. L. Complaint Carlisle Coal and Clay Co., Carlisle, Ind., excessive rate on coal from Carlisle, Ind., to Decker, Ind., rate being 70 cents per ton. Found rate Carlisle to Evansville was 40 cents per ton and the intermediate rate should not be in excess of 40 cent rate. Complainants advised.

D. T. 4024. Mine Props, C. L. Petition of F. C. Reiley, G. F. A., C. & E. I. R. R., for authority to refund overcharge on two cars mine props, Lena, Ind., to Clinton, Ind., account Miami Coal Co., rate used in billing was joint sixth class rate. Rate requested on which refund is based was combination local commodity rates, making lower through rate. The Commission authorized the refund on basis of combination local rates.

D. T. 4025. Straw, C. L. Request from J. W. Graham, G. F. A., T., St. L. & W., for authority to refund account overcharge on two cars straw from Russiaville to Lafayette, misrouted by the agent, sending cars via route bearing higher rate. Commission authorized refund to basis of lowest published rate, as the T., St. L. & W. were responsible for sending cars via route having the higher rate.

D. T. 4028. Corn, C. L. Petition of B. H. Stanage, A. G. F. A., C. & E. I. R. R., requesting authority to refund account overcharge in weight on eight cars corn, Vincennes to Evansville, billed weight 60,000 pounds per car, or 480,000 pounds; actual weight, 436,600 pounds. Refund requested on basis of actual weight. Found tariff in effect at time shipment moved provided that the minimum weight per car should be the marked capacity of car used. Billing, therefore, being in conformity with tariff, Commission without authority to authorize refund.

D. T. 4038. Traction Engine. Complaint Gaar-Scott Co., Richmond, Ind., account excessive rate charged on movement of traction engine from Odon, Ind., to Orleans, Ind., via C., T. H. & S. E. and C., I. & L. billed at fifth class rate. Odon to Orleans: 18½ cents. Found rate in effect, Odon to New Albany 11½ cents. fifth class. Orleans being intermediate, refund authorized on basis of 11½ cent rate.

D. T. 4041. Attendant With Bananas, C. L. Petition of L. S. & M. S. Ry. for authority to establish on one days' notice rule authorizing passage on one man free in charge. Cars bananas requiring attention during cold weather. Authority granted.

D. T. 4045. Rates on Potash, C. L. Complaint of Clendennin Fertilizer Co., Richmond, Ind., through Indiana Manufacturers' and Shippers' Association, alleged discrimination in rates on potash from New Orleans, La., to Woodward and Hagerstown, Ind., as against rates to Indianapolis and other points. Matter taken up through the P., C., C. & St. L. Ry., and they with initial lines. It is a question involving the fourth section of amended act, and a matter for the decision of the Interstate Commerce Commission. No definite information at hand, and complainants advised.

D. T. 4047. Logs, C. L. Complaint of St. Joe Valley Manufacturers' and Shippers' Association, South Bend, Ind., relating to alleged overcharge on logs from Cicero and Arcadia, Ind., to Goshen, Ind., via L. E. & W. Laporte, and L. S. & M. S. Rys. Shipment moved under published sixth class rate 9 cents per 100 pounds, and refund is requested on basis of Commission's scale of joint rate on logs, 7 cents per 100 pounds. Matter presented to L. S. & M. S., requesting settlement on basis of 7 cents per 100 pounds. Matter pending.

D. T. 4051. Stone, C. L. Complaint Indiana Fuel Supply Co., Indianapolis, alleged excessive charges on shipment four cars stone, Fair Grounds to Malott Park. Claimed rate quoted \$5.00 per car, and billing at $3\frac{1}{2}$ cents per 100 pounds. Found shipment moved under lawfully published rate and Commission without authority to authorize refund.

D. T. 4052. Rate on Grain, C. L. Petition C., C., C. & St. L. Ry. Co. for justification of refund made on alleged overcharge on grain from various C., C., C. & St. L. stations to Madison, Ind., on basis of rate on grain in effect to Jeffersonville and New Albany. Madison not being included in published tariffs at other than sixth class rate on grain. Commission held rate to Madison should not exceed the rate to Jeffersonville and New Albany. Commission advised that while the C., C., C. & St. L. had technically violated the law in refunding on other than the published tariff rate, they would not institute suit for having equalized these rates in making the refund.

D. T. 4057. Logs, C. L. Complaint St. Joe Valley Manufacturers' and Shippers' Association, South Bend, account Goshen Veneer Co., alleged overcharge \$30.72 on movement of logs, Hancock to Goshen, Ind., via Vandalia R. R. Claim based on Commission's scale of rates on logs. Commission authorized the Vandalia R. R. to settle claim on basis of their scale of rates.

D. T. 4058. Wagon Beds. Complaint Indianapolis Wagon Co., Lafayette, Ind., excessive weight charged on car wagon beds, Lafayette to Indianapolis. Joint weight inspection bureau estimated the weight of car by weighing one body and multiplying by total bodies in car. This exceeded the scale weight made by the railroad company and the estimated weight aimed at by shippers, as this was in excess of the track scale weight. Commission recommended claim be settled on basis of shippers' verified estimated weights.

D. T. 4067. Oil, C. L. Complaint Patoka Valley Oil and Gas Co., Princeton, Ind., based on rate charges in movement of petroleum oil moved in tank cars from Princeton to Evansville, 8 cents per 100 pounds. Found $6\frac{1}{2}$ cent rate published by the Southern Ry. Co., effective August 3, 1907, and refund authorized on all shipments moving subsequent to that date.

D. T. 4068. Household Goods. Complaint Rev. J. S. Meracle, North Salem, Ind., claiming overcharge on shipment household goods from North Salem, Ind., to Idaville, Ind., at rate 41 cents per 100 pounds. Investigated and found rate based on Monticello should have been used as the lowest combination and C., H. & D. Ry. Co. at fault in routing the car by lines carrying higher rate. North Salem to Monticello, 22 cents; Monticello to Idaville, via P., C., C. & St. L., $7\frac{1}{2}$ cents; through, $29\frac{1}{2}$ cents. Refund was authorized on basis of lower combination, $29\frac{1}{2}$ cents.

D. T. 4071. Rate on Cement Tile, C. L. Request from A. D. Miller, Goshen, Ind., for establishment of equitable rates on cement, tile and products from Goshen, Ind., to various points, via L. S. & M. S. and C., C., C. & St. L. roads. Satisfactory rates secured from the L. S. & M. S. Question of rates via the C., C., C. & St. L. still pending.

D. T. 4072. Stone, C. L. Request C., C., C. & St. L. Ry. for authority to refund on claim presented by the Greely Stone Co., St. Paul, Ind., on shipment of thirteen cars stone, St. Paul to Trafalgar, Ind. Rate used was published tariff rate, 50 cents per

ton; refund based on rate 45 cents St. Paul; 15 cents Morgantown, Trafalgar being intermediate. Commission authorized refund to basis of 45 cent rate.

D. T. 4073. Sand, C. L. Request Vandalia R. R. Co. for authority to refund on alleged overcharge on car sand, moving from Indianapolis to Bloomington, via Vandalia and C., I. & L. R. R. They desire refunding Central Gravel Co., Indianapolis, on basis of 55 cents per ton, a rate in effect via Indianapolis Southern. This rate was also in effect via Vandalia and C., I. & L., but by supplement issue the C., I. & L. was erroneously omitted as a concurring carrier. Commission held that as the I. S. was participating carrier, and the car unrouted, Vandalia should protect rate, and refund authorized on basis of 55 cent rate.

D. T. 4077. Scrap Iron, C. L. Request P., C., C. & St. L. for authority to refund A. Cohen, Indianapolis, alleged overcharge on car scrap iron, Taylorsville to Indianapolis, on basis of 90 cents per ton rate. The published tariff rate from Taylorsville to Indianapolis was \$1.10 per ton. The 90 cent rate was the published tariff rate Columbus to Indianapolis. Taylorsville being intermediate with Columbus, Commission held \$1.10 rate a violation of the long and short haul clause of statute, and refund authorized.

D. T. 4110. Rate on Grain. Complaint Ambia Grain Co., Ambia, Ind., account excessive rate on grain, Ambia, Ind., to Chicago, Ill., 7 cents per 100 pounds via L. E. & W. and C., I. & S., as against $4\frac{1}{2}$ cents to Chicago from adjacent territory via other lines. As this was interstate traffic, complainants were advised to petition to Interstate Commerce Commission.

D. T. 4121. Empty Carriers Returned. Complaint Perfection Biscuit Co., Fort Wayne, Ind., account differences in rates on interurban lines in handling return crates, cans, etc. Complaint made through Indiana Manufacturers' and Shippers' Association. As the Indiana law defining the authority of the Commission in its relation to interurban line's freight rates does not empower them as yet to adjust freight rates, complainants so advised.

D. T. 4106, 4116, 4117, 4118. Request from the N. Y. C. & St. L., Erie, T., St. L. & W. and M. C. tariff officials for authority to suspend certain tariffs and supplements on one days' notice, the Interstate Commerce Commission having suspended same. As the publications referred to had become effective, the Commission was

without authority to grant suspension; however rates on Indiana traffic were not effective.

D. T. 4123. Fertilizer. An informal petition by the Bash Fertilizer Co., Fort Wayne, Ind., for establishing joint rates on fertilizer from their plant, Prairie Switch, Wabash R. R., to stations on the L. E. & W. The question of publishing rates on basis of Commission's scale of rates on fertilizer taken up with the L. E. & W. R. R., who declined joining the Wabash R. R. on basis of rates referred to. Complainants advised, matter pending.

D. T. 4140. Combination Rates. Inquiry J. A. Allison, F. T. A., C., H. & D. Ry., as to Commission's ruling relating to application of combination local rates as the maximum rate to apply. Advised combination of local rates will apply when lower than through rate.

D. T. 4142. Baggage Extra Size. Complaint Talge Mahogany Co., Indianapolis, account various railroad companies publishing, effective January 1, 1912, additional charge for pieces of baggage exceeding 40 inches in dimension. Investigation started, and at same time railroads withdrew the clause in tariffs objected to. These withdrawals permitted by Commission. Complainants so advised.

D. T. 4145. Rates on Clay, Gravel, etc. Inquiry from Wabash Portland Cement Co., Detroit, Mich., requesting information as to rates in effect in Indiana on clay, gravel, coal, etc., for a distance of 12 miles. Tariffs examined, communication replied to.

D. T. 4149. Printing Paper. Complaint Western Newspaper Union, Omaha, Neb., alleged excessive freight rate charged on movement of two cars printing paper, Alexandria to Fort Wayne, via C., C., C. & St. L. and N. Y. C. & St. L. Investigated and found shipments were routed by consignor, and as lawfully published tariff rate was used, Commission without authority to refund.

D. T. 4152. Scrap Iron. Mr. Louis Schusteman, Spades, Ind., account alleged excessive rate used in movement of car of scrap iron, Spades to Greensburg, rate \$1.30 per ton via C., C., C. & St. L. Rate claimed, \$1.20 per ton. Found rate in effect, Spades to Indianapolis, \$1.20 per ton. Greensburg, being intermediate, higher rate was in violation of long and short haul clause, Indiana statute. Refund authorized on basis \$1.20 per ton.

D. T. 4160. Logs. Claim Tessellated Flooring Co., Edinburg, Ind., via C., C., C. & St. L. and P., C., C. & St. L., overcharge on

logs, Laurel to Edinburg, sixth class rate, 9 cents per 100 pounds used. Found combination rates made $8\frac{1}{2}$ cents, and refund authorized on basis of $8\frac{1}{2}$ cent rate.

D. T. 4163. Maximum Rates. Inquiry Central Freight Association, Chicago, Ill., as to Commission's ruling relating to application of combination local rates as the maximum rate. Advised that combination local rates applied when same made lower than through published rates.

D. T. 4167. Sand. Request from N. Y. C. & St. L. R. R. Co. for authority to refund alleged overcharge on movement of car sand, Eslen Park to Wheeler, based on rate 30 cents per ton, billed rate being 55 cents per ton. As the shipment moved prior to the effective date of the 30 cent rate the 55 cent rate, the lawfully published rate at time of movement, the Commission without authority to grant refund.

D. T. 4168. Switching Rate. Application F. C. Reiley, G. F. A., C. & E. I. R. R., for permission to make effective switching rate to and from plant of Indiana Tie Co., Evansville, Ind., showing reduction from usual switching tariff charge. Permission granted, provided rate was open to all, and for a period of not less than 30 days.

D. T. 4170. Rate on Mine Props. Inquiry Pittsburg Mining Co., Terre Haute, Ind., regarding application of combination local rates as against through rates. Advised that combination local rates would apply when less than through rate.

D. T. 4176. Cinders. C. L. Complaint M. Rumely Co., Laporte, Ind. Claimed excessive rate in movement of cinders, Elkhart to Laporte, via L. S. & M. S. Ry., rate used 65 cents per ton. Rate claimed 30 cents per ton. Found 30 cent rate not in effect at time of shipment, 65 cents being the only lawfully published rate in effect. Commission without authority to order refund.

D. T. 4181. Logs, C. L. Complaint Sanders & Egbert Co., through the St. Joe Valley Manufacturers' and Shippers' Association, Fort Wayne, Ind., alleged excessive rate charges on movement of logs, Michigan City to South Bend, via L. E. & W. and L. S. & M. S., sixth class rate used. Claim based on Commission's scale of rates on logs. Matter presented to L. E. & W., requesting refund on Commission's rates. Now pending.

M. T. BRADY, Clerk.

J. B. McNEELY, Tariff Clerk.

APPENDIX V.

Report of Inspection Department

AND

Accident Bulletins.

REPORT OF INSPECTION DEPARTMENT, 1911.

Hon. W. J. Wood, Chairman, Railroad Commission of Indiana, Indianapolis, Ind.:

DEAR SIR—The following is the report of the Inspection Department of the Railroad Commission of Indiana for the year 1911 and same is respectfully submitted:

The work of this department has been so diversified that I find it difficult to give an idea of it for use in the Annual Report without using too much space. By referring to former annual reports and records in this office, and consulting with Mr. D. E. Mathews, who has been connected with the Inspection Department several years, I am convinced that the steam roads of the State are making a determined and effectual effort to reduce the number of penalty defects on cars and engines. Speaking in a general way there is compliance with the foot-board, ashpan, bell-ringer, hand-hold, coupling lever and all other laws and Commission's orders that have in view the safe-guarding of life and property. Too much cannot be said for the managing officers of the steam roads and private industries concerning the interest they are showing, and their willingness to comply with the 7-foot lateral, and 21-foot overhead clearance laws. I do not recall a single case during the year where this department has met with opposition in matters of this kind. Some of our steel bridges, and a number of buildings and platforms that were in use prior to the enactment of our clearance laws, do not give the required clearance, and in some cases the cost of changing them would be very heavy. For this reason it would seem necessary to maintain some of them in their present condition until general repairs or reconstruction is necessary. Warning signs should be kept in first-class condition to protect workmen until proper clearance is arranged for.

During 1911 the Commission arranged for the "Double Order" system of handling train orders on interurban lines, requiring that both motorman and conductor report the train order to the dispatcher before it could be acted on.

The Commission also required the interurban lines to provide a separate compartment for the motorman in order that he might give his entire attention to the operation of his car.

Another order of the Commission required interurban lines to segregate the train dispatcher, and not permit him to sell tickets, or perform other duties that would bring him in contact with the general public during the time he was issuing train orders. This department has during the year in its trips of inspection throughout the State given these orders special attention and find a general compliance.

We have found it necessary to report to the Commission conditions on interurban lines that in our opinion affected safe operation, and as with the steam lines have found the operating officials willing and anxious to

accept any recommendation that would throw an additional safeguard about operation.

Total miles, steam and interurban, traveled by this department during the year, 53,658 miles.

Total of 3,786 miles, general inspection steam and interurban made during the year, in which condition of rail, fastenings, ties, ballast, bridges and buildings, highway crossings, etc., were reported to the Commission.

Total number of yard inspections, steam lines for the year, 288.

Total number of penalty defects found, necessitating repairs, or throwing car out of train, 34.

The Annual Report for 1910 closed with 405 inspection cases shown on Docket as pending. During the year this department has, according to the dockets, assisted the Commission in closing 271 of these cases, and handled during the year 720 new inspection cases.

J. M. SCOTT,

Chief Inspector.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
77	P., C., C. & St. L.	P., C., C. & St. L. railroad bridge.	New Castle.	Continued.
318	C., C., C. & St. L.	Overhead bridge.	Elkhart.	Continued.
422	E. & T. H.	Low highway bridge.	Wadesville.	Closed.
432	E. & T. H.	Low shed.	Evansville.	Closed.
676	P., C., C. & St. L.	Lateral obstruction.	Columbus.	Closed.
677	P., C., C. & St. L.	Lateral obstruction.	Kokomo.	Pending.
715	P., Ft. W. & C.	Depot.	Hobart.	Pending.
716	P., C., C. & St. L.	Depot.	Effner.	Pending.
724	P., C., C. & St. L.	Depot.	Manila.	Pending.
907	Indianapolis Union.	Low sheds.	Indianapolis.	Pending.
922	C., I. & L.	Violation full crew law.	Crawfordsville.	Closed.
954	I. & L.	Highway crossing.	Four different points.	Closed.
987	I. U. T. Line.	Railroad crossing.	Eaton.	Pending.
1002	T. H., I. & E.	Shelter sheds.	Entire line.	Pending.
1176	Winona Interurban.	Highway crossing.	Near Chili.	Closed.
1178	St. Joseph Valley Traction.	Condition of track.	Lagrange to Angola.	Closed.
1214	C., B. & C.	Highway crossing signs.	Entire line.	Closed.
1215	C., B. & C.	Whistling posts.	Entire line.	Closed.
1219	C., B. & C.	Ditching.	Pennville.	Closed.
1256	C., C. & L.	Drainage.	Entire line.	Corrected.
1268	C., C. & L.	Stations.	Converse.	Corrected.
1270	C., C. & L.	Highway crossing.	Jackson Road.	Pending.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
1288	G. T. W.	Double closets.	Entire line.	Corrected.
1422	L. E. & W.	Obstructions to feet.	Laporte.	Corrected.
1524	G. T. W.	Lateral obstruction.	South Bend.	Corrected.
1589	C., C., C. & St. L.	Lateral clearance.	Terre Haute.	Corrected.
1647	P., C., C. & St. L.	Lateral obstruction.	Marion.	Corrected.
1665	C., T. H. & S. E.	Obstruction to feet.	Preston.	Corrected.
1666	C., T. H. & S. E.	Obstruction to feet.	Dewey.	Closed.
1683	L. E. & W.	Obstruction to feet.	Walkerton.	Closed.
1694	B. & O. S. W.	Elevation of street bridge.	North Vernon.	Pending.
1807	Vandalia and Indianapolis Belt	Obstruction to feet.	Indianapolis.	Closed.
1868	C., B. & C.	Violation of safety appliance law.	Entire road.	Corrected.
1870	C., B. & C.	Violation of law.	Line of road.	Pending.
1874	P., C., C. & St. L.	Lateral obstruction.	Greenfield.	Pending.
1876	P., C., C. & St. L.	Lateral obstruction.	Greenfield.	Corrected.
1896	Ft. Wayne & Springfield.	Highway crossing signs.	Entire line.	Pending.
1938	C., C. & L.	Obstruction to feet.	At 6 different points.	Closed.
1951	C., C. & L.	Replacing box culverts.	Entire line.	Corrected.
1999	P., Ft. W. & C.	Planking across track.	Bourbon.	Corrected.
2028	Angola Ry.	Running cars without air.	On line.	Corrected.
2050	L. S. & M. S.	Crossing sign.	Porter.	Corrected.
2053	C. N. Y. Electric.	Banner on switch stands.	Entire line.	Corrected.
2057	C. N. Y. Electric.	Book of rules.	On line.	Corrected.

2075	B. & O.	Low wires.	Milford Jct.	Corrected.
2094	C., C., C. & St. L.	Highway crossing.	Gale Station.	Pending.
2115	B. & O.	Low wires.	Leland.	Corrected.
2116	B. & O.	Low wires.	Wawasee.	Pending.
2129	L. E. & W.	Obstruction to feet.	Montmorenci.	Closed.
2131	L. E. & W.	Obstruction to feet.	Otterbein.	Closed.
2132	L. E. & W.	Obstruction to feet.	Templeton.	Closed.
2133	L. E. & W.	Obstruction to feet.	Oxford.	Closed.
2146	C., I. & L.	Non-support of wires.	Wallace Jct.	Corrected.
2147	C., I. & L.	Non-support of wires.	Wallace Jct.	Corrected.
2158	C., C. & L.	Condition of track.	Peru.	Corrected.
2160	C., C. & L.	Ditches.	Entire line.	Corrected.
2168	C., C. & L.	Obstructions to feet.	La Crosse.	Corrected.
2169	C., C. & L.	Obstructions to feet.	North Judson.	Corrected.
2170	C., C. & L.	Obstructions to feet.	Kewanna.	Corrected.
2171	C., C. & L.	Obstructions to feet.	Hoovers.	Corrected.
2172	C., C. & L.	Obstructions to feet.	Muncie.	Corrected.
2175	C., C. & L.	Station.	Hammond.	Corrected.
2200	L. E. & W.	Dangerous crossing.	Mulberry.	Pending.
2202	Evansville Ry.	Non-support of wires.	Valley Ridge.	Corrected.
2203	Evansville Ry.	Non-support of wires.	Richland Jct.	Corrected.
2204	Evansville Ry.	Non-support of wires.	Hatfield.	Corrected.
2227	L. & N.	Low bridge.	Mt. Vernon.	Corrected.
2242	Evansville Ry.	Non-support of wires.	Oak Grove.	Corrected.
2243	E. & T. H.	Wooden bridges.	Entire line.	Corrected.
2250	C., I. & L.	Obstructions to feet.	Clay City.	Closed.
2264	Ft. W. & S.	Low wires.	Decatür.	Corrected.
2265	Ft. W. & S.	Low wires.	Decatür.	Corrected.
2272	C., I. & L.	Low wires.	Linden.	Pending.

REPORT OF INSPECTION DEPARTMENT FOR YEAR ENDING 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
2280	C., I. & L.	Low wires.	Bainbridge.	Pending.
2285	C., I. & L.	Low wires.	Cloverdale.	Pending.
2286	C., I. & L.	Low wires.	Ellettsville.	Pending.
2287	C., I. & L.)	Low wires.	Ellettsville.	Pending.
2288	C., I. & L.	Low wires.	Bloomington.	Pending.
2289	C., I. & L.	Low wires.	Bloomington.	Pending.
2290	C., I. & L.	Low wires.	Bloomington.	Corrected.
2295	C., I. & L.	Low wires.	Pekin.	Corrected.
2300	C., I. & L.	Low wires.	Near Lost River.	Pending.
2307	C., I. & L.	Low wires.	Wallace Jet.	Pending.
2310	I. & C.	Low wires.	Arlington.	Corrected.
2311	I. & C.	Low wires.	Carrolton.	Pending.
2313	I. & C.	Low wires.	New Palestine.	Pending.
2314	I. & C.	Low wires.	New Palestine.	Pending.
2315	I. & C.	Low wires.	New Palestine.	Pending.
2317	I. & C.	Low wires.	Fountaintown.	Pending.
2318	I. & C.	Low wires.	Julietta.	Pending.
2320	I. & C.	Low wires.	Indianapolis.	Pending.
2322	I. & C.	Low wires.	Indianapolis.	Pending.
2345	B. & O. S. W.	Low wires.	Mitchell.	Pending.
2351	C., I. & L.	Tunnel.	Owensburg.	Closed.
2354	Winona Electric	Unsafe bridge.	Goshen.	Pending.

2355	E. & S. I.	Low wires	Maidlow	Pending.
2356	Indianapolis Union.	Lateral obstruction	Indianapolis	Pending.
2357	Indianapolis Union.	Low wires	Indianapolis	Corrected.
2358	Indianapolis Union.	Low wires	Indianapolis	Pending.
2359	Indianapolis Union.	Low wires	Indianapolis	Pending.
2367	I., C. & S.	Cars not properly heated	On line	Corrected.
2368	C., S. B. & N. I.	Hand brakes	On line	Corrected.
2374	C., C. & St. I.	Deraile	Warsaw	Corrected.
2401	Illinois Central	Low wires	Poseyville	Corrected.
2407	Southern.	Low wires	East of tunnel No. 1	Corrected.
2408	Southern.	Low wires	Duncan	Corrected.
2409	Southern.	Low wires	Birdseye	Corrected.
2410	Southern.	Low wires	Hartwell Jct.	Corrected.
2411	Southern.	Low wires	Velpen	Corrected.
2413	Southern.	Low wires	Francisco	Pending.
2414	Southern.	Low wires	Douglas	Corrected.
2415	Southern.	Low wires	Douglas	Corrected.
2416	Southern.	Low wires	Princeton	Corrected.
2418	Southern.	Low wires	West Jet	Pending.
2419	Southern.	Low wires	Beck	Pending.
2421	Southern.	Low wires	Rockport	Corrected.
2442	C. & E. I.	Low wires	Edwards	Corrected.
2444	C. & E. I.	Low wires	Atherton	Corrected.
2445	C. & E. I.	Low wires	Otter Creek Jct.	Pending.
2453	C. & E. I.	Low wires	Terre Haute	Corrected.
2468	C. & E. I.	Low wires	Finney	Pending.
2469	C. & E. I.	Low wires	Finney	Pending.
2470	C. & E. I.	Low wires	Finney	Pending.
2471	C. & E. I.	Low wires	Finney	Pending.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
2472	C. & E. I.	Low wires.	Judyville.	Pending.
2473	C. & E. I.	Low wires.	Finney.	Pending.
2474	C. & E. I.	Low wires.	Judyville.	Pending.
2475	B. & O.	Low wires.	St. Joe.	Pending.
2476	B. & O.	Non-support of wires.	St. Joe.	Pending.
2477	B. & O.	Low wires.	St. Joe.	Pending.
2478	B. & O.	Low wires.	St. Joe.	Pending.
2479	B. & O.	Non-support of wires.	St. Joe.	Pending.
2480	B. & O.	Non-support of wires.	St. Joe.	Pending.
2481	B. & O.	Non-support of wires.	St. Joe.	Pending.
2482	B. & O.	Non-support of wires.	St. Joe.	Pending.
2488	B. & O.	Low wires.	Auburn.	Corrected.
2490	B. & O.	Long wire span.	Auburn.	Corrected.
2496	B. & O.	Long wire span.	Avilla.	Corrected.
2498	B. & O.	Long wire span.	Avilla.	Corrected.
2502	B. & O.	Non-support of wires.	Albion.	Corrected.
2503	B. & O.	Non-support of wires.	Albion.	Corrected.
2504	B. & O.	Non-support of wires.	Albion.	Corrected.
2505	B. & O.	Low wires.	Albion.	Corrected.
2507	B. & O.	Non-support of wires.	Albion.	Corrected.
2508	B. & O.	Long wire span.	Albion.	Corrected.
2509	B. & O.	Low wires.	Albion.	Corrected.

2510	B. & O.	Non-support of wires	Albion.....	Corrected.
2511	B. & O.	Long wire span	Albion.....	Corrected.
2512	B. & O.	Long wire span	Kimmel.....	Corrected.
2513	B. & O.	Long wire span	Kimmel.....	Corrected.
2515	B. & O.	Long wire span	Kimmel.....	Corrected.
2516	B. & O.	Non-support of wires	Cromwell.....	Corrected.
2517	B. & O.	Non-support of wires	Cromwell.....	Corrected.
2518	B. & O.	Non-support of wires	Cromwell.....	Corrected.
2519	B. & O.	Low wires	Syracuse.....	Corrected.
2526	B. & O.	Low wires	Syracuse.....	Corrected.
2527	B. & O.	Low wires	Syracuse.....	Corrected.
2528	B. & O.	Non-support of wires	Syracuse.....	Corrected.
2529	B. & O.	Non-support of wires	Milford.....	Corrected.
2530	B. & O.	Non-support of wires	Pole 165-2.....	Corrected.
2533	B. & O.	Low wires	Pole 165-32.....	Corrected.
2534	B. & O.	Non-support of wires	Nappanee.....	Corrected.
2535	B. & O.	Non-support of wires	Nappanee.....	Corrected.
2536	B. & O.	Low wires	Nappanee.....	Corrected.
2537	B. & O.	Low wires	Pole 173-25.....	Corrected.
2538	B. & O.	Long wire span	Nappanee.....	Corrected.
2539	B. & O.	Long wire span	Nappanee.....	Pending.
2540	B. & O.	Non-support of wires	Pole 174-1.....	Corrected.
2541	B. & O.	Non-support of wires	Pole 174-15.....	Corrected.
2542	B. & O.	Non-support of wires	Pole 175-12.....	Corrected.
2543	B. & O.	Non-support of wires	Pole 175-19.....	Corrected.
2544	B. & O.	Non-support of wires	Pole 176-19.....	Corrected.
2545	B. & O.	Low wires	Bremen.....	Corrected.
2547	B. & O.	Low wires	Pole 181-16.....	Corrected.
2549	B. & O.	Long wire span	Pole 182-3.....	Corrected.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
2550	B. & O.	Non-support of wires.	Pole 183-89.	Corrected.
2553	B. & O.	Non-support of wires.	Lapaz Jct.	Pending.
2562	B. & O.	Long wire span.	McCool.	Pending.
2568	B. & O.	Low wires.	Indiana Harbor.	Pending.
2574	G. T. W.	Long wire span.	Haskells.	Pending.
2577	G. T. W.	Non-support of wires.	Union Mills.	Corrected.
2589	G. T. W.	Non-support of wires.	Mill Creek.	Pending.
2592	G. T. W.	Non-support of wires.	Mill Creek.	Corrected.
2593	G. T. W.	Non-support of wires.	Crumston.	Corrected.
2594	G. T. W.	Non-support of wires.	South Bend.	Corrected.
2595	G. T. W.	Non-support of wires.	Grangers.	Pending.
2596	G. T. W.	Non-support of wires.	Grangers.	Corrected.
2597	G. T. W.	Long wire span.	Crumston.	Corrected.
2598	G. T. W.	Non-support of wires.	Crumston.	Corrected.
2600	G. T. W.	Non-support of wires.	Griffith.	Pending.
2606	G. T. W.	Non-support of wires.	Lottaville.	Pending.
2607	G. T. W.	Non-support of wires.	Lottaville.	Pending.
2608	G. T. W.	Non-support of wires.	Lottaville.	Pending.
2635	G. T. W.	Non-support of wires.	South Bend.	Corrected.
2636	G. T. W.	Non-support of wires.	South Bend.	Corrected.
2637	G. T. W.	Non-support of wires.	South Bend.	Corrected.
2638	G. T. W.	Non-support of wires.	South Bend.	Corrected.

2639	G. T. W.	Non-support of wires	South Bend	Corrected.
2640	G. T. W.	Non-support of wires	South Bend	Corrected.
2641	G. T. W.	Non-support of wires	South Bend	Corrected.
2642	G. T. W.	Non-support of wires	South Bend	Corrected.
2643	G. T. W.	Non-support of wires	South Bend	Corrected.
2644	G. T. W.	Non-support of wires	South Bend	Corrected.
2645	G. T. W.	Non-support of wires	South Bend	Corrected.
2646	G. T. W.	Non-support of wires	South Bend	Corrected.
2647	G. T. W.	Non-support of wires	South Bend	Corrected.
2648	G. T. W.	Non-support of wires	South Bend	Corrected.
2649	G. T. W.	Non-support of wires	South Bend	Corrected.
2654	G. T. W.	Non-support of wires	South Bend	Corrected.
2655	G. T. W.	Non-support of wires	South Bend	Pending.
2656	G. T. W.	Non-support of wires	South Bend	Pending.
2657	B. & O. S. W.	Non-support of wires	Maynard	Pending.
2660	I. & C.	Low wires	Jeffersonville	Corrected.
2663	C., I. & L.	Dangerous crossing	Shelbyville	Pending.
2664	C., I. & L.	Low wires	Bedford	Corrected.
2668	T. H., I. & E.	Low wires	Bedford	Corrected.
2669	L. E. & W.	Highway crossing signs	Richmond Division	Corrected.
2675	C., C., C. & St. L.	Highway crossing	Montpelier	Corrected.
2678	C., C., C. & St. L.	Low wires	Spades	Corrected.
2679	C., C., C. & St. L.	Low wires	Columbus	Corrected.
2680	C., C., C. & St. L.	Low wires	Columbus	Corrected.
2682	C., C., C. & St. L.	Low wires	Columbus	Corrected.
2684	C., C., C. & St. L.	Low wires	Rugby	Pending.
2685	C., C., C. & St. L.	Low wires	Hazlegrig	Corrected.
2687	C., C., C. & St. L.	Low wires	Thorntown	Corrected.
2688	C., C., C. & St. L.	Long wire span	Thorntown	Corrected.
		Long wire span	Stockwell	Corrected.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
2689	C., C., C. & St. L.	Long wire span.	Crane	Corrected.
2694	C., C., C. & St. L.	Long wire span.	Weisburg	Pending.
2700	C., C., C. & St. L.	Low wires	Swanington	Corrected.
2705	C., C., C. & St. L.	Long wire span.	Fowler	Corrected.
2708	C., C., C. & St. L.	Non-support of wires.	Crane	Corrected.
2713	C., C., C. & St. L.	Non-support of wires.	Earl Park	Pending.
2714	C., C., C. & St. L.	Long wire span.	Earl Park	Corrected.
2716	C., C., C. & St. L.	Long wire span.	Earl Park	Pending.
2717	C., C., C. & St. L.	Long wire span.	Raub	Corrected.
2718	C., C., C. & St. L.	Long wire span.	Raub	Corrected.
2719	C., C., C. & St. L.	Long wire span.	Raub	Corrected.
2720	C., C., C. & St. L.	Non-support of wires.	Sheldon	Pending.
2723	C., C., C. & St. L.	Long wire span.	Templeton	Corrected.
2724	C., C., C. & St. L.	Long wire span.	Templeton	Corrected.
2725	C., C., C. & St. L.	Long wire span.	Raub	Corrected.
2726	Indianapolis Union.	Station	Indianapolis	Pending.
2731	P., C., C. & St. L.	Highway crossing signs.	Logansport Division	Corrected.
2741	N. Y. C. & St. L.	Low wire.	Ft. Wayne	Corrected.
2742	N. Y. C. & St. L.	Low wire.	Peabody	Pending.
2743	N. Y. C. & St. L.	Low wire.	South Whitley	Pending.
2744	N. Y. C. & St. L.	Low wire.	Packertown	Pending.
2745	N. Y. C. & St. L.	Low wire.	Claypool	Pending.

2746	N. Y. C. & St. L.	Low wire.....	Mentone.....	Pending.
2754	P., Ft. W. & C.	Lateral obstruction.....	Ft. Wayne.....	Corrected.
2755	C., C. & St. L.	Non-support of wires.....	Goshen.....	Corrected.
2756	C., C. & St. L.	Non-support of wires.....	Milford.....	Pending.
2759	C., C. & St. L.	Non-support of wires.....	North Manchester.....	Corrected.
2760	C., C. & St. L.	Non-support of wires.....	Markleville.....	Pending.
2761	C., C. & St. L.	Low wires.....	Fortville.....	Pending.
2762	C., C. & St. L.	Non-support of wires.....	Fortville.....	Pending.
2763	C., C. & St. L.	Non-support of wires.....	Pendleton.....	Pending.
2765	C., C. & St. L.	Non-support of wires.....	Daleville.....	Corrected.
2767	C., C. & St. L.	Non-support of wires.....	Indianapolis.....	Corrected.
2768	C., C. & St. L.	Non-support of wires.....	Gale.....	Pending.
2769	C., C. & St. L.	Non-support of wires.....	Danville.....	Pending.
2771	C., C. & St. L.	Non-support of wires.....	Hadley.....	Corrected.
2772	C., C. & St. L.	Non-support of wires.....	Reno.....	Corrected.
2773	C., C. & St. L.	Non-support of wires.....	Reno.....	Pending.
2774	C., C. & St. L.	Low wires.....	Delmar.....	Pending.
2775	C., C. & St. L.	Non-support of wires.....	Delmar.....	Corrected.
2776	C., C. & St. L.	Non-support of wires.....	Greencastle.....	Corrected.
2777	C., C. & St. L.	Non-support of wires.....	Greencastle.....	Pending.
2778	C., C. & St. L.	Non-support of wires.....	Greencastle.....	Pending.
2779	C., C. & St. L.	Long wire span.....	Greencastle.....	Pending.
2780	C., C. & St. L.	Non-support of wires.....	Lena.....	Pending.
2781	C., C. & St. L.	Non-support of wires.....	Lena.....	Pending.
2782	C., C. & St. L.	Non-support of wires.....	Lena.....	Pending.
2783	C., C. & St. L.	Non-support of wires.....	Carbon.....	Pending.
2785	C., C. & St. L.	Non-support of wires.....	Perth Station.....	Pending.
2786	C., C. & St. L.	Non-support of wires.....	Perth Station.....	Pending.
2787	C., C. & St. L.	Low wire.....	Coal Bluff.....	Pending.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
2788	C., C., C. & St. L.	Non-support of wires.	Fontanet.	Pending.
2792	C., C., C. & St. L.	Non-support of wires.	Sanford.	Corrected.
2793	C., C., C. & St. L.	Non-support of wires.	Sanford.	Corrected.
2794	C., C., C. & St. L.	Non-support of wires.	Sanford.	Pending.
2796	C., C., C. & St. L.	Non-support of wires.	Raub.	Corrected.
2797	C., C., C. & St. L.	Non-support of wires.	Raub.	Corrected.
2801	C., C., C. & St. L.	Non-support of wires.	Raub.	Corrected.
2804	C., C., C. & St. L.	Non-support of wires.	Earl Park.	Corrected.
2806	C., C., C. & St. L.	Non-support of wires.	Earl Park.	Corrected.
2811	C., C., C. & St. L.	Low wires.	Atkinson.	Corrected.
2812	C., C., C. & St. L.	Non-support of wires.	Templeton.	Pending.
2814	C., C., C. & St. L.	Non-support of wires.	Templeton.	Pending.
2815	C., C., C. & St. L.	Non-support of wires.	Rex.	Pending.
2816	C., C., C. & St. L.	Non-support of wires.	Stockwell.	Corrected.
2817	C., C., C. & St. L.	Non-support of wires.	Rex Tower.	Corrected.
2820	C., C., C. & St. L.	Non-support of wires.	Crane.	Corrected.
2821	C., C., C. & St. L.	Non-support of wires.	Stockwell.	Corrected.
2822	C., C., C. & St. L.	Non-support of wires.	Clarks Hill.	Pending.
2824	C., C., C. & St. L.	Non-support of wires.	Thorntown.	Corrected.
2825	C., C., C. & St. L.	Non-support of wires.	Thorntown.	Corrected.
2827	C., C., C. & St. L.	Non-support of wires.	Lebanon.	Corrected.
2828	C., C., C. & St. L.	Non-support of wires.	Lebanon.	Corrected.

2834	C., C., C. & St. L.	Non-support of wires	LaFayette.	Corrected.
2835	C., C., C. & St. L.	Low wires	Shelbyville.	Corrected.
2837	C., C., C. & St. L.	Non-support of wires	Weisburg.	Pending.
2838	C., C., C. & St. L.	Non-support of wires	Fairmount.	Pending.
2839	C., C., C. & St. L.	Non-support of wires	Jonesboro.	Corrected.
2843	C., I. & L.	Low wires	LaFayette.	Corrected.
2845	C., I. & L.	Lateral obstruction	LaFayette.	Corrected.
2846	C., I. & L.	Lateral obstruction	LaFayette.	Corrected.
2848	C., I. & L.	Lateral obstruction	LaFayette.	Pending.
2853	I., C. & W.	Semaphore blades	Five different sidings	Corrected.
2854	Ft. W. & S.	Highway crossing signs	Entire line.	Corrected.
2863	T. H., I. & E.	Dangerous obstruction	Between Stop 16 and 17	Corrected.
2879	C., C., C. & St. L.	Condition of bridge	St. Paul	Corrected.
2882	I., N. C. & T.	Highway crossing	Newcastle.	Corrected.
2884	C. & O. of Ind.	Closets	Hammond.	Corrected.
2889	C., L. S. & S. B.	Condition of track	On line.	Corrected.
2893	C., L. S. & S. B.	Violation of rules	Gary.	Corrected.
2899	L. E. & W.	Derail	Newcastle.	Corrected.
2902	Winona T. Co.	Condition of track	Mentone to Chili.	Corrected.
2903	Winona T. Co.	Crossing signs and whistling posts	Entire line.	Corrected.
2904	Winona T. Co.	Switch lights	Seven Points	Corrected.
2905	Winona T. Co.	Guard Rails at Bridges	Chili	Corrected.
2907	Winona T. Co.	Highway crossing signs	Entire line.	Corrected.
2908	L. S. & M. S.	Highway crossing signs	Waterloo and Fort Wayne	Corrected.
2917	M. C. R. R.	Violation of law	Michigan City	Pending.
2927	G. T. W. Ry.	Crossing plank	Wellsboro.	Corrected.
2939	E. & T. H.	Lateral obstructions	Terre Haute	Corrected.
2940	E. & T. H.	Lateral obstructions	Terre Haute	Corrected.
2941	Wabash.	Obstructions to feet	Walcottville	Corrected.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
2947	C., H. & D.	Obstructions to feet.	Indianapolis.	Corrected.
2948	C., I. & L.	Violation of rule.	Indianapolis.	Corrected.
2950	P., C., C. & St. L.	Bridge.	Jeffersonville.	Pending.
2963	C., B. & C.	Violation of law.	Huntington.	Corrected.
2964	C., B. & C.	Car equipment.	Huntington.	Corrected.
2966	C., B. & C.	Whistling posts.	Entire line.	Corrected.
2967	C., B. & C.	Highway crossing signs.	Entire line.	Corrected.
2968	C., B. & C.	Grab irons.	Huntington.	Corrected.
2975	L. E. & W.	Track conditions.	Muncie.	Corrected.
2986	C., I. & L.	Lateral obstructions.	Indianapolis.	Corrected.
2987	P., C., C. & St. L.	Lateral obstructions.	Indianapolis.	Corrected.
2989	P., C., C. & St. L.	Overhead and lateral obstructions.	Indianapolis.	Corrected.
2993	C. & E. I.	Non-support of wires.	Judyville.	Pending.
2994	C. & E. I.	Non-support of wires.	Judyville.	Pending.
2995	C. & E. I.	Non-support of wires.	Finney.	Pending.
2996	C. & E. I.	Non-support of wires.	Stuart.	Pending.
2997	C. & E. I.	Non-support of wires.	Stuart.	Pending.
2998	C. & E. I.	Non-support of wires.	Pence.	Pending.
3000	C. & E. I.	Highway crossing signs.	Goodland to Brazil.	Corrected.
3001	C. & E. I.	Highway crossing signs.	Pence to Judyville.	Corrected.
3004	T. & C.	Crossing movement.	Auburn Jet.	Corrected.
3005	G. T. W.	Non-support of wires.	Granger.	Pending.

3006	G. R. & I.	Highway crossing signs.	Entire line.	Corrected.
3007	L. S. & M. S.	Station and closet.	Ligonier.	Corrected.
3012	E. & T. H.	Condition of track.	Entire line.	Corrected.
3014	C., H. & D.	Obstruction to feet.	Connersville.	Corrected.
3016	C., H. & D.	Low bridge.	Connersville.	Corrected.
3017	C., H. & D.	Lateral obstructions.	Connersville.	Corrected.
3019	T. H., I. & E.	No brake on car.	Terre Haute.	Corrected.
3020	C., C., C. & St. L.	Dangerous structure.	Terre Haute.	Corrected.
3021	L. E. & W.	Low wires.	Connersville.	Corrected.
3022	L. E. & W.	Lateral obstructions.	Connersville.	Corrected.
3023	C., H. & D.	Low wires.	Connersville.	Corrected.
3024	C., H. & D.	Lateral obstructions.	Connersville.	Pending.
3025	C., H. & D.	Lateral obstructions.	Connersville.	Corrected.
3026	C., H. & D.	Low wires.	Connersville.	Corrected.
3028	I. U. T. Co.	Low wires.	Milledgeville Pike	Corrected.
3029	L. E. & W.	Low wires.	Indianapolis.	Corrected.
3030	L. E. & W.	Non-support of wires.	Fishers.	Pending.
3031	I. U. T. Co.	Non-support of wires.	Noblesville.	Corrected.
3032	L. E. & W.	Low wires.	Noblesville.	Corrected.
3033	L. E. & W.	Low wires.	Arcadia.	Corrected.
3133	L. S. & M. S.	Non-support of wires.	Angola.	Pending.
3142	L. S. & M. S.	Non-support of wires.	Fremont.	Pending.
3244	L. S. & M. S.	Long wire span.	Elkhart.	Pending.
3246	L. S. & M. S.	Non-support of wires.	Dunlap.	Pending.
3255	L. S. & M. S.	Non-support of wires.	Goshen.	Pending.
3260	L. S. & M. S.	Non-support of wires.	Wanaka.	Pending.
3265	L. S. & M. S.	Non-support of wires.	Elkhart.	Pending.
3304	Vandalia.	Lateral clearances.	Martinsville.	Pending.
3312	C. & E.	Dangerous highway crossing.	Rochester.	Pending.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3334	I. U. T.	Discourteous treatment	Muncie	Corrected.
3335	M. & P.	Highway crossing signs	Entire line	Corrected.
3337	L. E. & W.	Stopping trains on R. R. crossings.	Bunker Hill	Corrected.
3340	C., H. & D.	Closets	Arlington	Corrected.
3341	L. & S. I.	Crowded condition of cars.	Jeffersonville	Corrected.
3344	C., I. & L.	Crossing bells	Carmel	Corrected.
3347	C., I. & L.	Obstructions to feet	LaFayette	Corrected.
3348	B. & O. S. W.	Semaphore signals	Seymour	Corrected.
3349	C., C., C. & St. L.	Bridge alarms	Indianapolis	Corrected.
3350	E. & T. H.	Violation of rule	Princeton	Corrected.
3352	Southern	Leaking tank	Princeton	Corrected.
3353	T. H., I. & E.	Excessive speed	Martinsville Div.	Corrected.
3354	C., C., C. & St. L.	Filthy condition of car	Martinsville	Corrected.
3355	Southern	Train bulletin board	Huntingburg	Corrected.
3356	Sou. Ind.	Train bulletin board	Terre Haute	Corrected.
3357	C., C., C. & St. L.	Derails	Shirley	Pending.
3359	Southern	Lateral obstruction	Huntingburg	Corrected.
3360	Sou. Ind.	Violation of Rule No. 26	Terre Haute	Corrected.
3361	P., C., C. & St. L.	Train bulletin board	New Castle	Corrected.
3362	L. E. & W.	Train bulletin board	New Castle	Corrected.
3363	L. E. & W.	Discourteous language	New Castle	Corrected.
3364	C. & O.	Obstruction on right of way	Peru	Corrected.

3365	C. & E.	Violation of rule 26.	Huntington.	Corrected.
3366	Wabash.	Insufficient clearance.	Peru.	Corrected.
3367	C. & O.	Condition of engine 250 and switches unlocked.	Peru.	Corrected.
3368	C., L. S. & S. B.	Conductors handling express.	Entire line.	Corrected.
3369	L. S. & M. S.	Overhead obstructions.	Goshen.	Corrected.
3370	I. U. T. Co.	Heating of cars.	Logansport Div.	Corrected.
3371	C. & E.	Highway crossing signs.	Entire line.	Pending.
3372	P., C., C. & St. L.	Leaking tank.	Richmond.	Corrected.
3373	C., C., C. & St. L.	Engine leaking.	Crawfordsville.	Corrected.
3374	I., C. & S.	Excessive speed of cars.	Shelby St., Indianapolis.	Corrected.
3375	Ft. W. & N. I.	Lighting cars during power failure.	On line.	Closed.
3376	C., C., C. & St. L.	Electric light wires.	Carthage.	Corrected.
3377	T. & C.	Highway crossing signs.	Line.	Corrected.
3378	St. J. V.	Highway crossing signs.	On line.	Corrected.
3379	L. & N. and E. & T. H.	Train bulletin boards.	Evansville.	Corrected.
3380	E. & T. H.	Condition of coaches.	Brazil.	Corrected.
3381	C., I. & L. and Vandalia.	Train service.	Gosport Jet.	Corrected.
3382	T. & C.	Conductors assisting passengers.	Garrett.	Corrected.
3383	St. J. V.	Closets on cars.	Line of road.	Closed.
3384	C., I. & L.	Engine 83.	Crawfordsville.	Corrected.
3385	C., H. & D.	Engine 65.	Indianapolis.	Corrected.
3386	L. & N.	Train bulletin board.	Evansville.	Corrected.
3387	T. H., I. & E.	Light on car 47.	Indianapolis.	Corrected.
3388	C. & O.	Lateral clearance.	Fowlerton.	Corrected.
3389	C., I. & L.	Violation of Rule 26.	Indianapolis.	Corrected.
3390	C., C., C. & St. L.	Running engine backwards.	Lyon to Durbin.	Closed.
3391	P. Co.	Car Inspectors working overtime.	Indianapolis.	Corrected.
3392	C. & O.	Obstruction to feet.	Richmond.	Closed.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3393	C. & O.	Obstruction to feet.	Richmond.	Corrected.
3394	C. & O.	Heavy power and weak trestles.	Line of road.	Closed.
3395	Inds. Union Ry. Co.	Union Station.	Indianapolis.	Pending.
3396	C. I. & L.	Carelessness of car inspector.	LaFayette.	Corrected.
3397	C. & O.	Automatic bell ringer.	Richmond.	Corrected.
3398	C. & O.	Switches unlocked.	Richmond.	Corrected.
3399	Wabash.	Switches unlocked.	LaFayette.	Corrected.
3400	C. H. & D.	Condition of yard engine 400.	Indianapolis.	Closed.
3401	C., C., C. & St. L.	Condition of engine 7294.	Indianapolis.	Closed.
3402	Wabash.	Derail.	LaFayette.	Corrected.
3403	C., C., C. & St. L.	Location of home signal and train order signal.	Colfax.	Closed.
3404	Wabash.	Train bulletin board.	West Lebanon.	Closed.
3405	L. E. & W.	Low draw bar.	Tipton.	Corrected.
3406	L. E. & W.	Switches unlocked.	Tipton.	Closed.
3407	I. U. T. Co.	Low switch stands; no banners.	Tipton.	Corrected.
3408	I. C. & S.	Defective hand brakes.	On line.	Corrected.
3409	Erie.	Non-support of wires.	Huntington.	Closed.
3410	I. U. T. Co.	Brake in bad condition.	Peru.	Corrected.
3411	C. & E.	Piston packing engine 792.	Huntington.	Corrected.
3412	I. C. & S.	Passengers in motormans' compartment.	Franklin.	Corrected.

3413	I. U. T. Co.	Motorman handling baggage.	Broad Ripple.	Corrected.
3414	C., I. & L.	Cars standing close to street.	Twenty-fifth St., Indpls.	Corrected.
3415	C., L., S. & S. B.	Defective time-table.	Entire line.	Corrected.
3416	C., C., C. & St. L.	Leaky stay-bolts engine 5406.	Brightwood.	Corrected.
3417	C., C., C. & St. L.	Dangerous footway.	Brightwood.	Corrected.
3418	C., H. & D.	Jacks in bad condition.	Moorefield.	Corrected.
3419	Vandalia	Location of home and train order signals.	Colfax.	Pending.
3420	C., I. & L.	Interchange track for passenger cars.	Gosport Jet.	Corrected.
3421	L. S. & M. S.	Track clearance.	Elkhart.	Closed.
3422	Wabash.	Bulletin board.	Peru.	Closed.
3423	T. H., I. & E.	Keeping stations open for passengers	Claypool.	Corrected.
3424	I. U. T. Co.	Moving train back without flagman.	Fairfield.	Corrected.
3425	C., H. & D.	Yard engine leaking steam.	Moorefield.	Corrected.
3426	C., H. & D.	Cylinder packing engine 402 leaking.	Moorefield.	Corrected.
3427	I. U. T. Co.	Toilet room door car 235 without lock.	On line.	Corrected.
3428	I. U. T. Co.	Stopping at railroad crossings.	Army Post.	Closed.
3429	S. I.	Unsanitary closets.	Linton.	Corrected.
3430	C., I. & L.	Penalty defect.	Linton.	Corrected.
3431	S. I.	Dangerous footway.	Terre Haute.	Corrected.
3432	C. & O.	Dangerous condition of east switch.	Bedford.	Corrected.
3433	C. & O.	Cinder pit facilities.	Muncie.	Closed.
3434	I. S.	Location of train order board.	Linton.	Corrected.
3435	P. & E.	Footboard engine 6572.	Moorefield.	Corrected.
3436	I. S. and S. I.	Signal protection at railroad crossings.	Linton.	Corrected.
3437	C., S. B. & N. I.	Bad hand brake car 219.	On line.	Pending.
3438	B. & O. and Vandalia.	Defective clearance.	Vincennes.	Corrected.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3439	E. & T. H.	Planking in Scott Street.	Vincennes	Corrected.
3440	E. Rys.	Condition of switch light.	On line	Corrected.
3441	E. Rys.	Speed of cars over spring switches.	On line	Corrected.
3442	E. & T. H.	Clearance at Hercules Buggy Co.	Evansville	Corrected.
3443	E. & T. H.	Clearance Peacock C. & M. Co.	Evansville	Corrected.
3444	I. S.	Bulletin board.	Linton	Pending.
3445	C., I. & L.	Condition of track into Furnace & Bank Co.	Indianapolis	Corrected.
3446	L. F. & W.	Condition of track L. & V. Co.	Indianapolis	Corrected.
3447	I. U. T. Co.	Bad condition of walks.	Lawrence & McCordsville	Corrected.
3448	E. & M. V.	General condition of road.	Line	Corrected.
3449	L., N. C. & T.	Dangerous condition of crossing.	Maxwell	Pending.
3450	Wabash	Inspection of engine	Peru	Corrected.
3451	C., I. & L.	Condition of engine 92	French Lick	Corrected.
3453	C., C., C. & St. L.	Switch unlocked	Crawfordsville	Corrected.
3454	C., I. & L.	Bridge alarms	Crawfordsville	Corrected.
3455	C., I. & L.	Overhead clearances	Crawfordsville	Corrected.
3456	T. H., I. & E.	Condition of track	Lebanon Div	Corrected.
3457	C., I. & L.	Handling of target	Indianapolis	Closed.
3458	Vandalia	Backing up of engine	Indianapolis and Martinsville	
3459	Ft. W. & S.	Violation of rules	On line	Transferred. Pending.

3460	C., H. & D.	Clearance tracks 1 and 2.	Indianapolis.	Corrected.
3461	I. U. T. Co.	Toilet.	Anderson.	Corrected.
3462	C., C., C. & St. L.	Clearance of freight house.	Anderson.	Transferred.
3463	C., I. & L.	Toilet room.	Hammond.	Corrected.
3464	Vandalia.	Obstruction to feet.	Crawfordsville.	Corrected.
3465	C., C., C. & St. L.	Obstruction to feet.	Crawfordsville.	Corrected.
3466	Wabash.	Dirty waiting room.	Peru.	Corrected.
3467	Wabash.	Violation of Rule 26.	Peru.	Corrected.
3468	I., N. C. & T.	Condition of track.	Line of road.	Corrected.
3469	Ft. W. & N. I.	Condition of track.	Ft. Wayne to Bluffton.	Pending.
3470	I. & C.	Condition of track.	Shelbyville and Fairland.	Corrected.
3471	C., H. & D.	Derail.	Connersville.	Pending.
3472	C., H. & D.	Switch unlocked.	Connersville.	Corrected.
3473	T. & C.	Bridge.	Huntertown.	Pending.
3474	T. & C.	Obstruction at curve.	Huntertown.	Pending.
3475	T. & C.	Bad curve.	Endsleys.	Pending.
3476	T. & C.	View obstructed at curve.	Endsleys.	Pending.
3477	T. & C.	Track.	Vandalia crossing.	Corrected.
3478	T. & C.	Condition of track.	Garrett and Kendallville.	Corrected.
3479	T. & C.	Bridge.	Kendallville.	Corrected.
3480	T. & C.	Train dispatchers.	Vandalia crossings.	Closed.
3481	T. & C.	Motormen handling baggage.	On line.	Corrected.
3482	C., I. & L.	Condition of engine 27.	Crawfordsville.	Corrected.
3483	C. & E.	Violation of full crew law.	Huntington.	Closed.
3484	L. E. & W.	Inspector's flag disregarded.	22nd St., Indianapolis.	Corrected.
3485	C., C., C. & St. L.	Obstruction to feet.	Indianapolis.	Corrected.
3486	C., C., C. & St. L.	Obstruction to feet.	Indianapolis.	Corrected.
3487	T., St. L. & W.	Obstruction to feet.	Malott.	Corrected.
3488	T. H., I. & E.	Unsanitary condition of car 54.	LaFayette.	Corrected.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3489	C., C., C. & St. L.	Overhead obstruction	Indianapolis.	Corrected.
3490	P., C., C. & St. L.	Lateral clearance.	Indianapolis.	Pending.
3491	C., S., B. & N. I.	Condition of car 217	Peru.	Corrected.
3492	C., S., B. & N. I.	Displaying signals without consulting dispatcher		
3493	I. U. T. Co.	Location of switch	Mishawaka.	Corrected.
3494	Beech Grove T. Co.	Operation	Noblesville.	Closed.
3495	Vandalia.	Treatment of passengers by agent	Entire line.	Closed.
3496	T. H., I. & E.	Car 27 operated without markers	Flora.	Corrected.
3497	C. & N. Y. E. Co.	Separate compartment for motormen	Indianapolis.	Corrected.
3498	T. H., I. & E.	Location of jack boxes	Line of road	Closed.
3499	C., H. & D.	Condition of engine 37	On line	Corrected.
3500	C., H. & D.	Switches unlocked	Indianapolis.	Corrected.
3501	C., C., C. & St. L.	No locks on switches	Indianapolis.	Corrected.
3502	C., I. & L.	Repair track switches not locked	Indianapolis.	Closed.
3503	I. C.	Flagman with less than one year's experience	So. Hammond	Corrected.
3504	Belt R. R.	Clearance	Evansville division	Closed.
3505	P., C., C. & St. L.	Repair track switches not locked	Indianapolis.	Corrected.
3506	C. & O.	Switch unlocked	Jeffersonville	Corrected.
3507	C., I. & L.	Overhead obstructions	Peru.	Corrected.
3508	C., T. H. & S. E.	Switches unlocked	New Albany.	Pending.
			Bedford.	Corrected.

3509	C., I. & L.	Switches unlocked.	Bedford.	Corrected.
3510	I. U. T. Co.	Violation of rules.	Indianapolis and Ft. Harri- son.	Closed.
3511	P., C., C. & St. L.	Obstruction to feet.	Richmond.	Closed.
3512	C., C., C. & St. L.	Freight train blocking highway.	Templeton.	Corrected.
3513	B. G. T. Co.	Headlights.	On line.	Corrected.
3514	M., B. & E.	Night markers on cars.	On line.	Corrected.
3515	C., C., C. & St. L.	Night watchman running engine.	Lawrenceburg.	Corrected.
3516	M., B. & E.	Sand boxes on cars.	On line.	Corrected.
3517	C., C., C. & St. L.	Sunday connections from through trains.	Lawrenceburg.	Corrected.
3518	K., M. & W.	Train order board.	Swayzee.	Closed.
3519	E. & S. I.	Condition of track.	Princeton to Patoka.	Pending.
3520	C., I. & L.	Condition of car 300.	On line.	Corrected.
3521	C., I. & L.	Violation of Rule 26.	Bedford.	Corrected.
3522	L. E. & W.	Obstruction to feet.	Portland.	Corrected.
3523	T. H., I. & E.	Obstruction of view at curve.	Numa.	Corrected.
3524	Vandalia.	Repair track switch unlocked.	Terre Haute.	Corrected.
3525	C., S. B. & N. I.	Motorman handling mail and bag- gage.	On lines.	Closed.
3526	B. & O.	Non-clearance for trainmen.	Richmond.	Corrected.
3527	C. & O.	Manner of coaling engines.	Richmond.	Corrected.
3528	C., I. & L.	Track centers too close.	LaFayette.	Pending.
3529	C., I. & S.	Overhead obstructions.	South Bend.	Corrected.
3530	C., B. & C.	Condition of passenger equipment.	On line.	Corrected.
3531	C. & O.	Bridges.	Richmond.	Pending.
3532	C. & O.	Bridge 124.	Richmond.	Pending.
3533	T. & C.	Motorman handling mail.	On line.	Corrected.
3534	C. & O.	Overhead obstructions.	Richmond.	Pending.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3535	C., S. B. & N. I.	Low wires.	South Bend.	Corrected.
3536	C., L. S. & S. B.	Low wires	South Bend	Corrected.
3537	I. U. T. Co.	Sounding highway whistle.	On line	Corrected.
3538	F., T. & S.	Dispatchers.	Decatur.	Pending.
3539	F., T. & S.	Ties in track.	Line of road.	Corrected.
3540	Ft. W. & N. I.	Interurban cars on city track.	Ft. Wayne.	Corrected.
3541	Various (electric).	Bulletin boards for interurbans.	State.	Closed.
3542	P., C., C. & St. L.	Erection of cable.	Center.	Closed.
3543	E. & S. I.	Cars without markers.	Princeton.	Corrected.
3544	C., C., C. & St. L.	Full crew switching law.	Lawrenceburg and Aurora.	Closed.
3545	I. U. T. Co.	Passengers in motorman's compartment.		
3546	E. & S. I.	Telephone connections along the line.	Indianapolis.	Closed.
3547	Southern.	Tunnel, No. 1.	On line.	Corrected.
3548	C., I. & L.	Obstruction to feet.	New Albany.	Closed.
3549	I. C.	Repair track switches unlocked.	Indianapolis.	Corrected.
3550	C., C., C. & St. L.	Violation of Rule 26.	Indianapolis.	Corrected.
3551	C., I. & L.	Footboard on tank of engines.	Indianapolis.	Corrected.
3552	L. E. & W.	Obstruction to feet.	Indianapolis.	Corrected.
3553	I. S.	Violation of switching full crew laws.	Indianapolis.	Corrected.
3554	C., N. Y. Elec.	Violation of the 16 hour law.	LaPorte.	Corrected.

3555	C., H. & D.	Obstruction to feet.	Indianapolis.	Corrected.
3556	C., H. & D.	Obstruction to feet.	Indianapolis.	Corrected.
3557	C., H. & D.	Repair track switches unlocked	Indianapolis.	Corrected.
3558	C., C., C. & St. L.	Bridge warning danglers.	Indianapolis.	Corrected.
3559	C., C., C. & St. L.	Non-clearance of platform.	Indianapolis.	Corrected.
3560	C., C., C. & St. L.	Trees obstructing view.	Indianapolis.	Corrected.
3561	C., H. & D.	Overhead obstruction.	Indianapolis.	Pending.
3562	C., C., C. & St. L.	Obstructions to feet.	Indianapolis.	Corrected.
3563	I. U. T. Co.	Overhead wires.	Indianapolis.	Corrected.
3564	I. U. T. Co.	Low wires.	Indianapolis.	Corrected.
3565	I. U. T. Co.	Low wires.	Indianapolis.	Corrected.
3566	I. U. T. Co.	Low wires.	Indianapolis.	Corrected.
3567	I. U. Ry.	Low wires.	Indianapolis.	Corrected.
3568	C., C., C. & St. L.	Obstructions to feet.	Indianapolis.	Corrected.
3569	Vandalia.	Obstructions to feet.	Indianapolis.	Corrected.
3570	Vandalia.	Obstructions to feet.	Indianapolis.	Corrected.
3571	C., C., C. & St. L.	Obstructions to feet.	Indianapolis.	Corrected.
3572	I. U. T. Co.	Obstructions to feet.	Indianapolis.	Corrected.
3573	C., C., C. & St. L.	Unnecessary delay to car 503.	Carmel.	Closed.
3574	C., C., C. & St. L.	Low wires.	Indianapolis.	Corrected.
3575	C., C., C. & St. L.	Obstructions to feet.	Indianapolis.	Corrected.
3576	C., C., C. & St. L.	Low wires.	Indianapolis.	Corrected.
3577	C., C., C. & St. L.	Non-clearance.	Indianapolis.	Corrected.
3578	C., C., C. & St. L.	Obstructing the street.	Indianapolis.	Pending.
3579	C., C., C. & St. L.	Non-clearance.	Indianapolis.	Corrected.
3580	Vandalia.	Obstructions to feet.	Indianapolis.	Corrected.
3581	C., C., C. & St. L.	Overhead obstructions.	Indianapolis.	Closed.
3582	Vandalia.	Obstructions to feet.	Indianapolis.	Corrected.
3583	Big Four.	Obstructions to feet.	Indianapolis.	Pending.
		Dangerous footing for trainmen.	Indianapolis.	Closed.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3584	K., M. & W.	Examination on book of rules.	Kokomo.	Closed.
3585	L. E. & W.	Shelter sheds.	Noblesville.	Closed.
3586	L. E. & W.	Non-support of wires.	Dundee.	Corrected.
3587	L. E. & W.	Bad pole.	Dundee.	Pending.
3588	I. U.	Obstruction to feet.	Indianapolis.	Corrected.
3589	C. I. L.	Station.	Cloverdale.	Corrected.
3590	C., C., C. & St. L.	Low wires.	Indianapolis.	Corrected.
3591	P. Co.	Lateral obstructions.	Anderson.	Pending.
3592	C., C., C. & St. L.	Overhead obstructions.	Anderson.	Corrected.
3593	P. Co.	Electric light wires.	Anderson.	Pending.
3594	C., C., C. & St. L.	Obstruction to feet.	Anderson.	Corrected.
3595	P. Co.	Obstruction to feet.	Anderson.	Closed.
3596	C., C., C. & St. L.	Overhead obstruction.	Anderson.	Corrected.
3597	C., C., C. & St. L.	Obstruction to feet.	Anderson.	Corrected.
3598	L. E. & W.	Switches unlocked.	Kokomo.	Corrected.
3599	L. E. & W.	Obstruction to feet.	Kokomo.	Corrected.
3600	L. E. & W.	Obstruction to feet.	Kokomo.	Corrected.
3601	P. Co.	Dangerous footway.	Kokomo.	Corrected.
3602	Kokomo Belt.	Obstruction to feet.	Terre Haute.	Corrected.
3603	C. & E. I. and Vandalia	Obstruction to feet.	Terre Haute.	Pending.
3604	Vandalia, C., C. & St. L., C. & E. I.	Non-clearance of platform.	Brazil.	Pending.
3605	C. & E. I.			

3606	Vandalia.....	Overhead obstruction.....	Brazil.....	Pending.
3607	P., C., C. & St. L.....	Coal wharf.....	Anderson.....	Corrected.
3608	P., C., C. & St. L.....	Repair track switches unlocked.....	Anderson.....	Corrected.
3609	P., C., C. & St. L.....	Obstruction to feet.....	Anderson.....	Corrected.
3610	L. E. & W.....	Overhead and lateral obstructions.....	Noblesville.....	Corrected.
3611	P. Co.....	Obstruction to feet.....	Indianapolis.....	Corrected.
3612	P., C., C. & St. L.....	Obstruction to feet.....	Indianapolis.....	Pending.
3613	C., C., C. & St. L.....	Obstruction to feet.....	Terre Haute.....	Corrected.
3614	E. & T. H.....	Overhead obstructions.....	Terre Haute.....	Pending.
3615	C., C., C. & St. L.....	Overhead obstructions.....	Terre Haute.....	Pending.
3616	C., C., C. & St. L.....	Obstructions to feet.....	Terre Haute.....	Corrected.
3617	P. Co.....	Overhead obstructions.....	Indianapolis.....	Corrected.
3618	P. Co.....	Train bulletin board.....	Anderson.....	Corrected.
3619	L. E. & W.....	Train bulletin board.....	Kokomo.....	Corrected.
3620	C., C., C. & St. L.....	Obstruction to feet.....	Lebanon.....	Corrected.
3621	Erie.....	Crossing frog.....	Huntington.....	Corrected.
3622	P. M.....	Condition of track.....	LaPorte and LaCrosse.....	Pending.
3623	N. J., I. & I.....	Backing of engine.....	South Bend to Pine.....	Corrected.
3624	P., C., C. & St. L.....	Obstructions to feet.....	Kokomo.....	Corrected.
3625	P., C., C. & St. L.....	Obstruction to feet.....	Indianapolis.....	Corrected.
3626	P. Co.....	Obstruction to feet.....	Indianapolis.....	Corrected.
3627	C., H. & D.....	Lateral obstruction.....	Connerville.....	Pending.
3629	C., C., C. & St. L.....	Train bulletin board.....	Connerville.....	Corrected.
3630	D. & U.....	Non-clearance coal sheds.....	Union city.....	Pending.
3631	A., S. & W. Co.....	Warning ticklers.....	Anderson.....	Corrected.
3632	C., C., C. & St. L.....	Obstruction to feet.....	Greensburg.....	Corrected.
3633	C., C., C. & St. L.....	Obstruction to feet.....	Shelbyville.....	Pending.
3634	D. & U.....	Obstruction to feet.....	Union City.....	Pending.
3635	I. U. T. Co.....	No drinking water on car.....	Indianapolis.....	Corrected.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3637	C., C., C. & St. L.	Obstruction to feet.	Indianapolis.	Corrected.
3639	C., C., C. & St. L.	Bridge danglers.	Connersville.	Corrected.
3640	C., C., C. & St. L.	Obstruction to feet.	Greensburg.	Corrected.
3641	I. U. T. Co.	Passengers in motorman's vestibule.	Indianapolis.	Corrected.
3642	C. N. Y. Elect.	Violation of Human Endurance Law.	On line.	Corrected.
3643	C. N. Y. Elect.	Standard book of rules.	On line.	Corrected.
3644	C., C., C. & St. L.	Obstruction to feet.	Shelbyville.	Corrected.
3645	C. N. Y. Elect.	Hand brakes.	On line.	Corrected.
3646	C. N. Y. Elect.	Switch stands, O.	On line.	Corrected.
3647	I. U. Ry.	Overhead and lateral obstruction.	Indianapolis.	Corrected.
3648	C., C., C. & St. L.	Obstructions to feet.	Connersville.	Corrected.
3649	C., C., C. & St. L.	Obstruction to feet.	Greensburg.	Corrected.
3650	C., C., C. & St. L.	Obstruction to feet.	Greensburg.	Corrected.
3651	P. & E.	Eng. 7277, 7278 p.	Indianapolis.	Corrected.
3652	I. U. T.	Operation of car 261.	Wabash to Anderson.	Corrected.
3653	L. E. & W.	Obstruction to feet.	Indianapolis.	Corrected.
3654	I. U. Ry.	Obstruction to feet.	Indianapolis.	Corrected.
3655	L. E. & W.	Obstruction to feet.	Indianapolis.	Corrected.
3656	I., C. & W.	Passengers in motorman's vestibule.	Indianapolis.	Corrected.
3657	I., C. & W.	Passengers in motorman's vestibule.	Indianapolis.	Closed.
3658	I., C. & W.	Misconduct of conductor.	Indianapolis.	Corrected.
3659	L. E. & W.	Obstruction to feet.	Indianapolis.	Corrected.

3660	I. U. T.	Motorman handling mail.	Muncie to Indianapolis.	Corrected.
3661	T. H., I. & E.	Height of car steps.	Indianapolis.	Pending.
3662	Wabash.	Switch ties.	On line.	Corrected.
3663	Wabash.	Ballast.	On line.	Pending.
3664	Wabash.	Rails.	Peru Division.	Pending.
3665	Wabash.	Emergency rails.	Peru Division.	Corrected.
3666	Wabash.	Bridges.	Peru Division.	Closed.
3667	Wabash.	Overhead obstructions.	Clark's Junction.	Pending.
3668	Wabash.	Platform.	Delphi.	Pending.
3669	Wabash.	Platform.	Wabash.	Pending.
3670	Wabash.	Switch lamps.	On line.	Corrected.
3671	Wabash.	Stop signs, red lights.	On line.	Corrected.
3672	Wabash.	Highway crossings and danger signs.	On line.	Pending.
3673	Wabash.	Backing engine.	Attica to Covington.	Pending.
3674	Wabash.	Non-clearance of house tracks.	Wabash.	Corrected.
3675	I. U. Ry.	Overhead clearance.	Indianapolis.	Corrected.
3676	T. H., I. & E.	Highway crossing signs.	Mulberry.	Pending.
3677	I. U. T. Co.	Bridge out of line.	West of Parker.	Corrected.
3678	I. U. T. Co.	Inside guard rail.	Muncie.	Corrected.
3679	C. & O.	Bridge ticklers.	Muncie.	Corrected.
3680	C. & N. Y. Elec.	Bridges and trestles.	On line.	Pending.
3681	C. & O.	Repair track switches unlocked.	On line.	Corrected.
3682	C. & O.	Train register.	Terminal.	Pending.
3683	C., I. & S.	Train register.	Terminal.	Corrected.
3684	C., I. & S.	Rest register.	Hammond.	Pending.
3685	C., C., C. & St. L.	Violation of full crew law.	Indianapolis.	Corrected.
3686	P. & E.	Obstructions to feet.	Indianapolis.	Corrected.
3687	P. & E.	Overhead obstructions.	Indianapolis.	Pending.
3688	P. & E.	Dangerous walkway for trainman.	Indianapolis.	Corrected.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3689	C., C., C. & St. L.	Overhead and lateral obstruction.	Columbus.	Closed.
3690	I., C. & St. T. Co.	Inside guard rails.	Amity.	Pending.
3691	C., S. B. & N. I.	Gate at L. S. & M. S. crossing.	Twin Branch.	Transferred.
3692	Vandalia.	Non-clearing platform.	Martinsville.	Corrected.
3693	I., C. & St. T. Co.	Inside guard rails.	Columbus.	Pending.
3694	C., C., C. & St. L.	Low telephone wires.	Sheldon.	Corrected.
3696	C., C., C. & St. L.	High tension wires.	Shelbyville.	Corrected.
3697	C., I. & L.	Engine 252.	Monon.	Corrected.
3698	T., St. L. & W.	Tie renewal.	Line.	Pending.
3699	T., St. L. & W.	Ballast renewal.	Line.	Pending.
3700	T., St. L. & W.	Bridge 271.	Line.	Corrected.
3701	T., St. L. & W.	Stations and grounds.	Line.	Corrected.
3702	T., St. L. & W.	Highway crossing signs.	Line.	Pending.
3703	C., S. B. & N. I.	Sixteen hour law.	Elkhart.	Closed.
3704	T., St. L. & W.	Red lights at stop signs.	Line.	Corrected.
3705	E. Ry.	Dispatcher's hours in service.	Evansville.	Corrected.
3706	C., I. & L.	Loose stone along track.	Thorntown.	Corrected.
3707	L., E. & W.	Cleaning ash pans.	New Castle.	Corrected.
3708	I., U. T. Co.	View obstructed by trees.	Indianapolis.	Corrected.
3709	C., H. & D.	High tension wires.	Connersville.	Pending.
3710	C., I. & L.	Engine 68 working shorthanded.	Indianapolis.	Corrected.
3711	C., C., C. & St. L.	Bell ringer 7362.	Indianapolis.	Corrected.

3712	Vandalia.....	Bad walkway for trainmen.....	Martinsville.....	Corrected.
3713	C., I. & L.....	Engine 72 working shorthanded.....	Monon.....	Corrected.
3715	C., I. & L.....	Passenger accommodations.....	Bloomington yards.....	Corrected.
3716	T. H., I. & E.....	Inside guard rails.....	Terre Haute.....	Pending.
3717	I., N. C. & T.....	Failure to stop cars at crossings.....	Maxwell.....	Pending.
3718	I. U. Ry.....	Pole used for switching.....	Indianapolis.....	Corrected.
3719	P., C., C. & St. L.....	Bridge danglers.....	Speeds.....	Corrected.
3720	I., C. & S.....	Crowded cars.....	Indianapolis.....	Closed.
3721	Winona I. Co.....	Wash across track.....	Chili.....	Pending.
3722	Winona I. Co.....	Poor physical condition first five miles track north of Peru.....	Lynn.....	Pending.
3723	Winona.....	Inside guard rail.....	Peru to Warsaw.....	Pending.
3724	Winona T. Co.....	Slow speed board.....	Line.....	Pending.
3725	Winona T. Co.....	Obstruction along track.....	Line.....	Pending.
3726	C., H. & D.....	Non-clearance of bridge.....	Connersville.....	Transferred.
3727	T. H., I. & E.....	Overrunning switch.....	Terre Haute.....	Corrected.
3728	T. H., I. & E.....	Flagging crossings.....	Terre Haute.....	Pending.
3729	E., S. & N.....	Violation of full crew law.....	Evansville.....	Closed.
3730	B. & O., P. Co., P. M., Wabash.....	Stopping trains at crossings.....	Hammond.....	Pending.
3731	L. & N.....	Violation of full crew laws.....	Evansville.....	Pending.
3732	G., R. & I.....	Stopping trains at grade crossing and Ft. W. & S. Traction.....	Near Decatur.....	Corrected.
3733	L. S. & M. S.....	Violation of full crew switching law.....	Elkhart.....	Corrected.
3735	E., S. & N.....	Displaying markers.....	Evansville.....	Corrected.
3736	Wabash.....	Violation of full crew switching law.....	Peru.....	Pending.
3737	C. & O. and I. U. T.....	Crossing frog.....	Peru.....	Corrected.
3738	I. U. T.....	Motorman talking to passengers.....	Muncie to Indianapolis.....	Closed.
3740	I. & C.....	Poor condition of platform, etc.....	Connersville.....	Pending.
3741	I. U. T.....	Changing crews on line.....	On line.....	Closed.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3742	I. & C.	Violation of law flagging crossing.	On line.	Corrected.
3743	I. S.	Switch lights on derrails.	On line.	Closed.
3744	M. C.	Date on bulletin board.	Michigan City.	Corrected.
3746	C., I. & L.	Incorrect marking of bulletin board.	Hammond.	Corrected.
3747	C., L. S. & S. B.	Toilet out of order.	Gary.	Corrected.
3748	Ft. W. & N. I.	Employment of motormen.	Ft. Wayne.	Closed.
3749	B. & O. S. W.	Non-clearance of platform.	Seymour.	Closed.
3750	L. & N.	Traveling crane over side track.	Evansville.	Closed.
3751	T. H., I. & E.	Man in motorman's vestibule.	Terre Haute.	Closed.
3752	I. U. T. Co.	Failure to stop cars.	Williams Creek.	Closed.
3753	B. & O.	Double heading.	On line.	Corrected.
3754	T., St. L. & W.	Dangerous railroad crossing.	Greentown.	Pending.
3755	Vandalia.	Dangerous condition of overhead bridge.	Plainfield.	Pending.
3756	I. U. T. Co.	Failure to comply with double order rules.		
3757	C. & E. I.	Retaining wall.	Ft. Harrison.	Corrected.
3758	N. Y. C. & St. L.	Repair track switch unlocked.	Montezuma.	Closed.
3759	N. Y. C. & St. L.	Overhead clearance into building.	Ft. Wayne.	Corrected.
3760	C. & E. I.	Close platform.	Ft. Wayne.	Pending.
3761	I. U. T. Co.	Trailer displaying markers.	Hillsdale.	Closed.
3762	C., H. & D.	Non-clearance depressed track.	Shadeland.	Corrected.
			Melcher.	Closed.

3763	P. M.	Engine backing up on passenger train	LaCrosse Division.	Pending.
3764	C. & O.	Planking highway crossing.	On line.	Closed.
3765	L. E. & W.	Stopping at grade crossings.	Michigan City	Pending.
3766	Wabash.	Non-clearance overhead	Ft. Wayne.	Closed.
3767	N. Y. C. & St. L.	Non-clearance overhead	Ft. Wayne.	Closed.
3768	Wabash.	Bridge danglers.	Ft. Wayne.	Pending.
3769	P. Co.	Bridge danglers.	Ft. Wayne.	Corrected.
3770	N. Y. C. & St. L.	Lateral clearances.	Ft. Wayne.	Corrected.
3771	P. Co.	Non-clearing shed	Indianapolis.	Corrected.
3772	N. Y. C. & St. L.	Bad walkway for trainmen.	Ft. Wayne.	Pending.
3773	P. C. and L. S. & M. S.	Obstructions along the track.	Ft. Wayne.	Pending.
3774	P. Co.	Rubbish along track.	Ft. Wayne.	Corrected.
3775	I. S. & S. Co.	Side clearance.	East Chicago.	Corrected.
3776	Vandalia.	Proposed street crossing.	Camden.	Pending.
3777	C. S. B. & N. I.	Passengers in motormen's vestibule	LaPorte and M. City.	Closed.
3778	C. C., C. & St. L.	Bell ringer inoperative engine 7269.	Muncie.	Closed.
3779	C. C., C. & St. L.	Train operation with engine backing up.		
3780	I. U. T. Co.	Crowded condition of car	Harrison to Brookville.	Pending.
3782	L. & N.	Overhead clearance.	Muncie to Anderson.	Pending.
3783	I. C.	Overhead clearance.	Evansville.	Pending.
3784	I. C.	Overhead clearance.	Evansville.	Pending.
3785	E. & T. H.	Pig iron piled close to track	Evansville.	Corrected.
3786	E. & T. H.	Shed over track.	Evansville.	Corrected.
3787	L. & N.	Overhead clearance.	Evansville.	Corrected.
3788	L. & N.	Poor clearance on both sides of track	Evansville.	Corrected.
3789	N. Y. C. & St. L.	Obstructions piled close to track	Ft. Wayne.	Pending.
3790	Southern.	Non-clearance between tracks.	Evansville.	Pending.
3791	Ill. Cent.	Obstruction along track.	Evansville.	Pending.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3792	E. & T. H.	Obstructions to feet.	Evansville.	Corrected.
3793	E. & T. H.	Obstructions to feet.	Evansville.	Corrected.
3794	E. & T. H.	Obstructions to feet.	Evansville.	Corrected.
3795	E. & T. H.	Overhead clearance.	Evansville.	Corrected.
3796	I. C.	Lateral clearance.	Evansville.	Pending.
3797	I. C. & S.	Conduct of conductor.	On line.	Corrected.
3798	I. C. & S.	Failure to comply with double order rules.	Siding No. 2.	Closed.
3799	C., C., C. & St. L.	Unsanitary condition of toilet.	Connersville.	Corrected.
3800	Ft. W. & N. I.	Highway crossing signs.	On line.	Pending.
3801	G. T.	Bulletin board not dated.	South Bend.	Corrected.
3802	M., B. & E.	Highway crossing signs.	On line.	Corrected.
3803	C., C., C. & St. L.	Bulletin board not dated.	Brookville.	Corrected.
3804	Vandalia.	Bulletin board not dated.	Terre Haute.	Pending.
3805	G. T.	Station facilities.	Stilwell.	Pending.
3806	C., S. B. & N. I.	Passengers in motorman's compartment.	On line.	Corrected.
3807	C., C., C. & St. L.	Train movement with engine backing.	Brookville.	Pending.
3808	C., I. & L.	Obstructions to feet.	Crawfordsville.	Pending.
3809	Ft. W. & N. I.	Disabled conductor operating car.	On line.	Corrected.
3810	Ft. W. & N. I.	Weeds obstructing view of signs on poles.	On line.	Corrected.

3811	Vandalia.....	Lateral and overhead clearance.....	Brazil.....	Pending.
3812	Vandalia.....	Violation of full crew law.....	Indianapolis.....	Corrected.
3813	Vandalia.....	Lateral obstruction.....	Brazil.....	Closed.
3814	Vandalia.....	Lateral obstruction.....	Brazil.....	Pending.
3815	C. & E. I.....	Lateral obstruction.....	Brazil.....	Pending.
3816	C. & E. I.....	Repair tracks unprotected.....	Brazil.....	Corrected.
3817	Vandalia.....	Backing engines.....	Brazil to Seelyville.....	Pending.
3818	T. H., I. & E.....	Crowded cars.....	On line.....	Corrected.
3819	C., I. & L.....	Pushing cars ahead of engine.....	Carmel.....	Closed.
3820	Various.....	Grade crossing stops city limits.....	East Hammond.....	Pending.
3821	C. & O.....	Telegraph conditions.....	On line.....	Pending.
3822	P., Ft. W. & C.....	Violation of full crew law.....	Plymouth and Chicago.....	Pending.
3823	Penna.....	Violation of full crew law.....	Ft. Wayne.....	Pending.
3824	B. & O. S. W.....	Lateral clearance.....	Nabb.....	Corrected.
3825	I., C. & S.....	Passengers talking to motormen.....	On line.....	Corrected.
3827	C. & O.....	Lateral clearance.....	Marion.....	Closed.
3828	Penna.....	Overhead clearance.....	Ft. Wayne.....	Closed.
3829	I. & C.....	Passengers in motorman's compartment.....	Indianapolis.....	Corrected.
3830	T. & C.....	Flagging cars over crossing.....	Auburn Jet.....	Pending.
3831	I. U. T.....	Not complying with double order system.....	On line.....	Corrected.
3832	C., C., C. & St. L.....	Telegraph wires.....	Losantville.....	Pending.
3833	C., C., C. & St. L.....	Telephone wires.....	Losantville.....	Pending.
3834	I., N. C. & T.....	Operating without book of rules.....	On line.....	Corrected.
3835	T. H., I. & E.....	Crossing protection.....	On line.....	Pending.
3836	B. & O.....	Telegraph service.....	Milford Jet.....	Closed.
3837	Penna.....	Crossing bells.....	Louisville Division.....	Pending.
3838	C., H. & D.....	Highway crossing.....	Mitchellville.....	Pending.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No	RAILROAD.	Subject.	Location.	Disposition.
3839	C., H. & D.	Separation of grade.	Mitchellville	Pending.
3840	T. H., I. & E.	Toilet facilities.	Sullivan	Corrected.
3841	C., C., C. & St. L.	Drinking cups.	On line.	Closed.
3842	I., C. & S.	Re-employment of motorman.	Line.	Closed.
3843	Vandalia	Dangerous crossing.	Filmore	Transferred.
3845	C., C., C. & St. L.	Caboose 999783.	Louisville Division	Pending.
3846	L. E. & W.	Exposed pipe and wire line	Indianapolis	Corrected.
3847	C., H. & D.	Cars left standing at crossing.	Glenwood	Corrected.
3848	L. E. & W. and Ft. W. & N. I.	Dangerous crossing.	Yoder	Pending.
3849	C., C., C. & St. L.	Bulletin boards not dated.	North Vernon	Corrected.
3851	B. & O. S. W.	Lumber piled too close to track.	North Vernon	Corrected.
3852	B. & O. S. W.	Non-clearance of track.	North Vernon	Corrected.
3853	Ft. W. & N. I.	Passengers in baggage car.	On line.	Corrected.
3854	T. H., I. & E.	Dangerous highway crossing.	Filmore	Pending.
3855	C., T. H. & S. E.	Trains meeting in block.	Terre Haute	Corrected.
3856	N. Y. C. & St. L.	No lamp on derail at passing siding.	Rutland	Corrected.
3857	Vandalia	No lamp on derail at passing siding.	Kewanna	Closed.
3858	I. H. B.	Overhead obstruction.	Hammond	Corrected.
3859	B. & O. S. W.	Low wires.	Vincennes	Pending.
3861	L. E. & W.	Telephone wires.	Tipton	Closed.
3862	Vandalia	Obstructions to feet.	Indianapolis	Pending.
3863	K., M. & W.	No train order signals.	Swayzee	Corrected.

3864	C. & E. I.	Overhead obstruction.	Evansville.	Pending.
3865	C., I. & L., and Ill. Cent.	Highway crossings.	Dugger.	Pending.
3866	B. & O.	Low wires.	Vincennes.	Pending.
3867		Clearance of grain elevator.	Indianapolis.	Pending.
3868	L. S. & M. S.	Engine without pilot.	South Bend and Elkhart.	Corrected.
3869	I. U. T.	Poor condition of track.	Indianapolis.	Corrected.
3870	G. T. W.	Violation full crew law.	South Bend.	Corrected.
3871	P., Ft. W. & C.	Safety appliances.	Ft. Wayne.	Pending.
3872	C. & O.	Bulletin board not dated.	Peru.	Corrected.
3874	E., J. & E.	Violation full crew law.	Gary.	Corrected.
3875	I. U. T.	Night markers.	On line.	Corrected.
3876	I. U. T.	Industrial track gates.	On line.	Pending.
3877	Ft. W. & N. I.	Visitors in motorman's compartment.	On line.	Corrected.
3879	L. S. & M. S.	Trains delayed on crossing.	Kendallville.	Pending.
3880	I. & C.	Condition of crossing.	Connersville.	Corrected.
3881	Vandalia.	Lateral clearance.	Indianapolis.	Pending.
3882	Wabash.	Stopping at grade crossing.	Hammond.	Pending.
3883	I. C.	Condition of elevated track.	Indianapolis.	Corrected.
3884	I. U. T.	Coburn warehouse track.	Indianapolis.	Pending.
3885	P., C., C. & St. L.	Violation full crew law.	LaFayette.	Corrected.
3886	E. Rys. Co.	Condition of track.	On line.	Pending.
3887	E. Rys. Co.	Bad ties.	On line.	Corrected.
3888	E. Rys. Co.	Trestle out of line.	On line.	Corrected.
3889	E. Rys. Co.	Cribbing of track down.	On line.	Corrected.
3890	E. Rys. Co.	Bad ties in siding.	On line.	Corrected.
3891	L. E. & W.	Lateral clearance.	Muncie.	Closed.
3892	B. & O. S. W.	Lateral clearance.	Seymour.	Corrected.
3893	Penn.	Overhead obstruction.	Elwood.	Pending.
3894	Penn.	Obstruction to feet.	Elwood.	Pending.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3895	Penn.	Obstruction to feet.	Elwood.	Corrected.
3896	Penn.	Lateral clearance.	Elwood.	Corrected.
3897	Penn.	Obstruction to feet.	Elwood.	Corrected.
3898	Penn.	Obstruction.	Elwood.	Corrected.
3899	Penn.	Lateral clearance.	Elwood.	Corrected.
3900	Penn.	Lateral clearance.	Elwood.	Corrected.
3901	Penn.	Lateral clearance.	Elwood.	Pending.
3902	Penn.	Obstruction to feet.	Elwood.	Pending.
3903	Penn.	Overhead obstruction.	Elwood.	Pending.
3904	B. & O. S. W.	Violation of 16 hour law.	On line.	Pending.
3905	L. & N.	Obstruction to feet.	Evansville.	Closed.
3906	G. T. W.	Condition of crossing.	South Bend.	Pending.
3907	Vandalia.	Condition of team track.	Lyons.	Pending.
3908	C., C., C. & St. L.	Making crossing stop.	Muncie.	Corrected.
3909	C., C., C. & St. L.	Lateral clearance.	Muncie.	Closed.
3910	C., C., C. & St. L.	Lateral clearance.	Muncie.	Corrected.
3911	C., C., C. & St. L.	Lateral clearance.	Muncie.	Pending.
3912	C., C., C. & St. L.	Lateral clearance.	Terre Haute.	Pending.
3913	C., C., C. & St. L.	Engine 7311.	Indianapolis.	Corrected.
3914	C., C., C. & St. L.	Switch unlocked.	Indianapolis.	Corrected.
3915	L. & N. I.	Toilet rooms.	Jeffersonville.	Pending.
3916	Winona Trac.	Condition of waiting room.	Chili.	Corrected.

3917	Southern.....	General conditions.....	Entire line.....	Pending.
3918	L. S. & M. S.....	Details.....	Pine.....	Pending.
3919	C. & E.....	Crossing frogs.....	Decatur.....	Pending.
3920	C., I. & L.....	Clearance of yard tracks.....	Indianapolis.....	Pending.
3921	C., I. & L.....	Obstruction to feet.....	Indianapolis.....	Corrected.
3922	Vandalia.....	Clearance of yard track.....	Indianapolis.....	Corrected.
3923	C., C., C. & St. L.....	Obstruction to feet.....	Indianapolis.....	Corrected.
3924	C., I. & L.....	Overhead clearance.....	Crawfordsville.....	Corrected.
3925	C., C., C. & St. L.....	Obstruction to feet.....	Crawfordsville.....	Corrected.
3926	C., I. & L.....	Condition at light plant.....	Crawfordsville.....	Pending.
3927	C., I. & L.....	Walkway for trainmen.....	Crawfordsville.....	Pending.
3928	C., C., C. & St. L.....	Yard tracks too close.....	Anderson.....	Pending.
3929	C., C., C. & St. L.....	Lateral clearance.....	Anderson.....	Corrected.
3930	Penn.....	Lighting plant track.....	Anderson.....	Pending.
3931	Penn.....	Overhead obstruction.....	Anderson.....	Corrected.
3932	C., I. & L.....	Handling freight.....	Poland.....	Pending.
3933	Southern.....	General condition.....	On line.....	Pending.
3934	Southern.....	Track conditions.....	On line.....	Corrected.
3935	Southern.....	Track conditions.....	Tell city.....	Corrected.
3936	Southern.....	Toilet rooms.....	Boonville.....	Closed.
3937	Southern.....	Box car depot.....	Lamar.....	Pending.
3938	Southern.....	Train order signal.....	On line.....	Pending.
3939	Southern.....	Water pipes.....	Huntingburg.....	Pending.
3940	Southern.....	Cinder pit.....	On line.....	Corrected.
3941	Southern.....	Car inspection.....	Lincoln city.....	Pending.
3942	Southern.....	Time card clearances.....	On line.....	Corrected.
3943	Southern.....	Overhead clearance.....	Troy.....	Pending.
3944	Penn.....	Lights on derails.....	On line.....	Pending.
3945	C., H. & D.....	Highway crossing signs.....	On line.....	Pending.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3946	T., St. L. & W.	Automatic bell ringer.	Marion.	Pending.
3947	C., C. & St. L.	Automatic bell ringer.	Marion.	Pending.
3948	C. & E.	Condition of yard.	Hammond.	Corrected.
3949	C., C. & St. L.	Obstruction to feet.	Sumner.	Corrected.
3950	C., C. & St. L.	Lateral clearance.	Indianapolis.	Corrected.
3951	C. & E. I.	Obstruction to feet.	Linton.	Pending.
3952	Vandalia.	Obstruction to feet.	Bushrod.	Corrected.
3953	L. E. & W.	Switching with pole.	Tipton.	Corrected.
3954	L. E. & W.	Inspector's flag.	Tipton.	Corrected.
3955	C., C. & St. L.	Lateral clearance.	Indianapolis.	Pending.
3956	C., I. & L.	Switch unlocked.	LaFayette.	Corrected.
3957	C., I. & L.	Bulletin board not dated.	LaFayette.	Corrected.
3959	B. & O. S. W.	Obstruction to feet.	Vincennes.	Pending.
3960	B. & O. S. W.	Foot board on engines.	Vincennes.	Corrected.
3961	B. & O. S. W.	Supports of elevated track.	Vincennes.	Pending.
3962	B. & O. S. W.	Overhead clearance.	Vincennes.	Pending.
3963	B. & O. S. W.	Bulletin board not dated.	Vincennes.	Corrected.
3964	B. & O. S. W.	Obstruction to feet.	Vincennes.	Corrected.
3965	Vandalia.	Lateral clearance.	Indianapolis.	Corrected.
3966	Vandalia.	Lateral clearance.	Indianapolis.	Pending.
3967	Vandalia.	Obstruction to feet.	Indianapolis.	Corrected.
3968	B. & O. S. W.	Lateral clearance.	Vincennes.	Corrected.

3969	Vandalia.....	Lateral clearance.....	Indianapolis.....	Pending.
3970	C., C., C. & St. L.....	Lateral clearance.....	Marion.....	Pending.
3971	C., C., C. & St. L.....	Lateral clearance.....	Sunman.....	Pending.
3972	C., C., C. & St. L.....	Lateral clearance.....	Sunman.....	Pending.
3973	C., C., C. & St. L.....	Lateral clearance.....	Marion.....	Closed.
3974	T., St. L. & W.....	Lateral clearances.....	Marion.....	Pending.
3975	T., St. L. & W.....	Lateral clearances.....	Marion.....	Pending.
3976	T., St. L. & W.....	Lateral clearances.....	Marion.....	Corrected.
3977	T., St. L. & W.....	Lateral clearances.....	Marion.....	Pending.
3978	T., St. L. & W.....	Violation full crew law.....	Marion.....	Closed.
3979	C., C., C. & St. L.....	Switches unlocked.....	Marion.....	Corrected.
3980	C., C., C. & St. L.....	Obstruction to feet.....	Marion.....	Pending.
3981	C., C., C. & St. L.....	Lateral clearances.....	Marion.....	Pending.
3982	C., C., C. & St. L.....	Obstruction to feet.....	Sunman.....	Corrected.
3983	L. & N.....	Dangerous crossing.....	Howell.....	Pending.
3984	C., C., C. & St. L.....	Violation of full crew law.....	Wabash.....	Pending.
3985	C., I. & L.....	Violation of full crew law.....	On line.....	Closed.
3987	C., C., C. & St. L.....	Overhead clearances.....	Indianapolis.....	Corrected.
3988	C., C., C. & St. L.....	Overhead clearances.....	Marion.....	Corrected.
3989	Wabash.....	Bulletin boards not dated.....	Huntington.....	Corrected.
3990	C. & E.....	Defective switch.....	Kingsland.....	Corrected.
3991	C. & E.....	Crossing signs.....	On line.....	Pending.
3992	C. & E.....	Switch lights.....	On line.....	Pending.
3993	C. & E.....	Trainmen riding pilots.....	Boon Grove.....	Corrected.
3994	C. & E.....	Bad ties.....	Bass Lake Jet.....	Corrected.
3995	T., St. L. & W.....	Old ties along track.....	Frankfort.....	Corrected.
3996	C., C., C. & St. L.....	Bridge alarms.....	Wabash.....	Corrected.
3997	White River R. R.....	Lateral clearances.....	Indianapolis.....	Pending.
3998	White River R. R.....	Lateral clearances.....	Indianapolis.....	Pending.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
3999	White River R. R.	Lateral clearances	Indianapolis	Pending.
4000	White River R. R.	Lateral clearances	Indianapolis	Pending.
4001	White River R. R.	Lateral clearances	Indianapolis	Pending.
4002	White River R. R.	Lateral clearances	Indianapolis	Pending.
4003	White River R. R.	Lateral clearances	Indianapolis	Pending.
4005	Vandalia	Lateral clearance	Indianapolis	Pending.
4006	C. & O.	Obstruction to feet	Peru	Pending.
4008	C. H. & D.	Lateral clearance	Morristown	Pending.
4009	C. H. & D.	Lateral clearances	Marshall	Corrected.
4010	C. H. & D.	Station building	Morristown	Pending.
4011	C. H. & D.	Obstruction to feet	Mt. Clair	Corrected.
4012	C. H. & D.	Obstruction to feet	Roachdale	Corrected.
4013	C. & E. I.	Lights on derails	On line	Pending.
4014	Vandalia	Lights on derails	On line	Pending.
4015	C. H. & D.	Dates on bulletin boards	Springfield Division	Pending.
4016	C. H. & D.	Lateral clearances	Bloomington	Pending.
4017	C. H. & D.	Switch lights	Indianapolis Division	Pending.
4018	L. S. & M. S.	Switch unlocked	Pinola	Corrected.
4019	L. S. & M. S.	Coal dump	Pinola	Pending.
4020	P. M.	Lateral clearances	LaPorte	Pending.
4021	C. & N. Y. Elec.	Motorman's compartment	On line	Pending.
4023	L. S. & M. S.	Location of station	Pinola	Pending.

4024	L. S. & M. S.	Overhead clearances.	LaPorte.	Corrected.
4025	L. S. & M. S.	Overhead clearances.	LaPorte.	Pending.
4026	L. E. & W.	Unlocked switches.	Peru.	Corrected.
4027	L. E. & W.	Unlocked repair track switches.	Peru.	Corrected.
4028	I. C.	Overhead clearances.	Indianapolis.	Pending.
4029	C., I. & L.	Condition of engines.	Monon.	Corrected.
4030	L. E. & W.	Overhead obstruction.	LaPorte.	Pending.
4032	L. S. & M. S.	Obstruction to feet.	LaPorte.	Corrected.
4033	L. S. & M. S.	Obstruction to feet.	LaPorte.	Pending.
4034	M. C.	Obstruction to feet.	Michigan City.	Pending.
4035	Wabash.	Condition of engines.	Wabash Yards.	Corrected.
4036	C. & E. I.	Footboards on yard engines.	Seibert.	Corrected.
4037	C. & N. Y. Elec.	Waiting rooms.	Woodville.	Corrected.
4038	C., H. & D.	Engine 207.	Indianapolis.	Pending.
4039	C., H. & D.	Engine 403.	Indianapolis.	Pending.
4040	C., C., C. & St. L.	Engine 6909.	Indianapolis.	Pending.
4042	C., C., C. & St. L.	Engine 7308.	Indianapolis.	Corrected.
4043	B. & O.	Lateral clearances.	Paris Crossing.	Pending.
4044	T. H., I. & E.	Experience of motorman.	Indianapolis.	Closed.
4047	K., M. & W.	Highway crossing signs.	Sto: 38.	Pending.
4048	Wabash.	Telegraph poles.	Ft. Wayne.	Pending.
4049	C., C., C. & St. L.	Footway on bridge.	Connorsville.	Pending.
4050	C., C., C. & St. L.	Station platform.	Newcastle.	Pending.
4051	C., C., C. & St. L.	Station platform lights.	Lawrenceburg Junction.	Pending.
4052	C., C., C. & St. L.	Improper flagging.	Connorsville.	Pending.
4053	C., C., C. & St. L.	Overhead clearance.	Yorktown.	Pending.
4054	K., M. & W.	Switch unlocked.	Bee Hive.	Corrected.
4055	I. C.	Box car depot.	Cass.	Pending.
4056	I. C.	Unsanitary condition toilet.	Linton.	Corrected.

REPORT OF INSPECTION DEPARTMENT FOR YEAR 1911—Continued.

I. R. No.	RAILROAD.	Subject.	Location.	Disposition.
4057	I., C. & S. T. Co.	Absence of signals.	On line.	Corrected.
4058	P., C., C. & St. L.	Non-clearance of gate.	Columbus.	Corrected.
4059	C., C., C. & St. L.	Engine 7271.	Indianapolis.	Corrected.
4060	P., C., C. & St. L.	Obstruction to feet.	Columbus.	Corrected.
4061	B. & O. S. W.	Lateral clearances.	Cochran.	Clearance.
4062	P., C., C. & St. L.	Lateral clearance.	New Castle.	Pending.
4063	C., I. & L.	Condition engine 219.	Monon.	Corrected.
4064	P. Co.	Bridge warning.	Ft. Wayne.	Corrected.
4065	P. Co.	Condition engine 8585.	Indianapolis.	Corrected.
4066	P., C., C. & St. L.	Switch unlocked.	Columbus.	Corrected.
4067	C. & E. I.	Trespassers.	Hillsdale.	Corrected.
4068	I. H. Belt R. R.	Hump yards.	Gibson.	Corrected.
4069	L. E. & W.	Non-clearance.	Elwood.	Pending.
4070	Vandalia.	Non-clearance.	Terre Haute.	Pending.
4071	E. & T. H.	Non-clearance.	Terre Haute.	Pending.
4072	E. & T. H. and Vandalia.	Non-clearance.	Terre Haute.	Pending.
4073	C., I. & L.	Station building.	Monon.	Pending.
4074	P. Co.	Bell ringer.	Ft. Wayne.	Pending.
4075	L. E. & W.	Clearance.	Indianapolis.	Pending.
4076	L. E. & W.	Switch unlocked.	Indianapolis.	Corrected.
4077	C., I. & L.	Obstruction to feet.	Indianapolis.	Pending.
4078	L. E. & W.	Switch unlocked.	Indianapolis.	Corrected.
4079	L. E. & W.	Bridge warning.	Logansport.	Pending.
4080	Vandalia.			

RAILROAD COMMISSION OF INDIANA,
INDIANAPOLIS, August 1, 1911.*Mr. J. M. Scott, Chief Inspector:*

DEAR SIR—I note your letter advising continuance of this matter until we can hear from the American Railway Association. Please advise as soon as you have heard from this association.

Yours truly,

W. J. WOOD,
Chairman.

W-H

INSIDE GUARD RAILS ON BRIDGES FOR THE PURPOSE OF GUIDING DERAILED WHEELS ACROSS SAME.

Correspondence had by the Commission with all steam and interurban managers on the subject develops the fact that all steam roads operating in and through the State use the inside guard rail. Some of the lines protect all bridges over fifty (50) feet in length built on tangent, and all bridges on curves. One line leaves the matter in the hands of the local operating men, but the majority of steam lines require that all bridges be protected by the inside guard rail.

The interurban lines are not so nearly a unit on the necessity for the inside guard rail. One managing officer remarks that if bridges are to be guarded, why not all fills, etc.? For this manager's information it might be well to state that it is no uncommon thing for a steam line or electric line to put down an inside guard rail where there is no bridge. The C., I. & L. Ry. has an inside guard rail from Massachusetts avenue, about 2,000 feet north, to keep cars that might be derailed from going over a retaining wall on the west side of the track. The C., S. B. & N. I. Traction Co., between Mishawaka and South Bend, use inside guard rails where the track runs close to the bank of the St. Joe River, and there are hundreds of other cases that could be cited. Another manager of an interurban line considers the inside guard rail a menace rather than a protection, saying that he recalls two instances where the inside guard rail caused a derailed car to knock down a bridge, account wheels that were traveling between the main track rails catching the point of the guard rail at end of bridge, and pushing the derailed car farther away from the track. This statement certainly will not count for much when we figure that the inside wheels would have to be traveling at least two feet four and one-quarter inches from the main track rail before it would be possible for them to take the wrong side of inside guard rail, and it is certainly apparent that if the inside wheels are traveling two feet four and one-quarter inches from the rail, the other wheels are traveling outside the main track rails at least two feet four and one-quarter inches, which means that these wheels would be at least ten inches over the end of a track tie, and at least three inches over the end of a 9-foot bridge tie, and certainly no one hopes to do much in controlling derailed wheels after they leave the ties. Our large interurban lines favor the inside guard rails. It would seem with all steam line officials favoring its use, and the fact that a car derailed on a steam line usually has cars ahead of it, and behind it, and the strength of couplers to keep it going

parallel with the track until train stops, that the inside guard rail would be more of a help on interurban lines, where the general practice is to run a single car as a train, and where it is certainly necessary to afford the greatest amount of protection possible, figuring that the per cent. of passenger cars, compared with the freight cars, greatly exceeds those on steam lines.

Respectfully submitted,

J. M. SCOTT,

Chief Inspector.

RAILROAD COMMISSION OF INDIANA.

INDIANAPOLIS, January 24, 1912.

Hon. W. J. Wood, Chairman, Railroad Commission of Indiana, Indianapolis, Ind.:

DEAR SIR—Following is a report of boiler inspection made by Inspector James Donohue for the months of November and December, 1911, his appointment being effective November 1, 1911. Other cases handled by him where condition of engine was not considered dangerous, steam leaks, etc., are handled on the regular I. R. Docket, this record dealing exclusively with conditions considered dangerous.

Yours very truly,

J. M. SCOTT,

Chief Inspector.

INSPECTION OF BOILERS.

Br. No.	RAILROAD.	Location.	Subject.	Disposition.
1	C., C., C. & St. L.	Brightwood	Engine 6731 dropped crown sheet	Closed.
2	C., H. & D.	Moorefield	Engine 377 dropped crown sheet	Closed.
3	C., H. & D.	Moorefield	Engine 366 condemned fire box	Engine taken out of State.
4	C., H. & D.	Moorefield	Engine 326 condition of boiler	Engine taken out of State.
5	C., H. & D.	Moorefield	Condemned throat sheet	Pending.
6	Vandalia	Gaskill	Engine 442 dropped crown sheet	Pending.
7	C., C., C. & St. L.	Fortville	Engine 6646 boiler explosion	Pending.
16	C., H. & D.	Indianapolis	Engine 401 plugged flues	Corrected.
19	P., C., C. & St. L.	Indianapolis	Engine 8399 broken stay bolts	Pending.
22	Wabash	Peru	Engine 2082 condition of boiler	Corrected.
24	C., I. & L.	Indianapolis	Engine 420 condition of boiler	Corrected.
28	L., E. & W.	Ft. Wayne	Engine 4247 broken stay bolts	Corrected.
29	P., Ft. W. & C.	Gary	Engine 9013 leaky throttle	Corrected.
30	C., I. & L.	Hammond	Engine 46 broken stay bolts	Pending.
31	C., H. & D.	Indianapolis	Engine 401 plugged flue	Corrected.
32	Wabash	Ft. Wayne	Engine 2082 condition of boiler	Out of service for new fire box.
35	C., H. & D.	Indianapolis	Engine 340 broken stay bolts	Corrected.
36	I. U. Ry.	Indianapolis	Engine 15 defective repairs	Corrected.

INSPECTION OF BOILERS—Continued.

Br. No.	RAILROAD.	Location.	Subject.	Disposition.
37	I. U. Ry....	Indianapolis.....	Engine 22 defective flue sheet and bolts.....	Pending.
38	C., C., C. & St. L.....	Indianapolis.....	Engine 6637 defective machinery.....	Corrected.
43	I. C.....	Indianapolis.....	Engine 1848 broken stay bolts.....	Corrected.
45	I. C.....	Indianapolis.....	Engine 1846 broken stay bolts.....	Corrected.
46	I. C.....	Indianapolis.....	Engine 468 defective stay bolts.....	Corrected.
47	P. Co.....	Indianapolis.....	Engine 8494 defective condition.....	Engine out of service.
48	C., H. & D.....	Indianapolis.....	Engine 95 loose stay bolts.....	Pending.
50	P. Co.....	Indianapolis.....	Engine 8381 washout plug leaking.....	Corrected.
51	I. C.....	Indianapolis.....	Engine 1191 boiler in dangerous condition.....	Engine in shop.

Accident Bulletin No. 15.

RAILROAD ACCIDENTS IN THE STATE OF INDIANA DURING JANUARY, FEBRUARY AND MARCH, 1911.

Twenty-five railroads, steam and interurban, in this State report no accidents of any kind for the months of January, February and March, 1911. It is encouraging that this table is growing, and shows an increase of ten over the quarter one year ago, and eight over the last quarter of 1910.

Among other general results, we note that the interurban railroads have decreased for this quarter their total death accidents from eight to four, and their total injured in accidents from forty-seven to thirty-three; and the steam railroads have decreased their total injured in accidents from 490 to 429. It is also to be noted under general results, that during this quarter there were no passengers killed on the steam railroads and no passengers killed on the electric railroads. All of these are encouraging features of this report.

It is true that this quarter of 1911 shows a large increase of passengers injured on the steam railroads. This increase is due to one accident to a Southern passenger train running into an open switch at New Albany on March 1, colliding with an engine standing on the side track, and injuring a great many of them slightly, seventy-five passengers.

Table No. 3 shows a slight increase of two in the number of persons killed while traveling on the grade crossings of highways and steam railroads in this State over the corresponding quarter of 1910; but, it is also true, that on the electric railroads four travelers were killed in 1910 at grade crossings, while none were killed in this quarter of 1911.

Table No. 4, employes killed and injured on the steam railroads, shows an increase of three employes killed over the corresponding quarter of 1910, but quite a decrease in the number of employes injured. During this quarter there were thirty-two employes killed, in the following manner:

- 1 conductor while attempting to board pilot of engine.
- 1 engineer in head-on collision.

- 1 engineer account of tender jumping track.
- 1 fireman in head-on collision.
- 1 fireman in yard collision.
- 1 brakeman in head-on collision.
- 3 brakemen being caught between cars.
- 2 brakemen struck by cars and run over.
- 2 brakemen falling from car.
- 1 brakeman getting off of train.
- 1 brakeman struck by overhead bridge.
- 1 brakeman caught between tender and car standing on adjacent track.
- 1 brakeman caught between cars that did not clear.
- 1 brakeman while coupling air hose.
- 3 laborers struck by train while at work on track.
- 2 laborers struck by trains when crossing tracks.
- 1 laborer attempting to board train.
- 2 crossing watchmen struck by train.
- 1 crossing watchman attempting to board train.
- 1 engine inspector burned while lighting headlight of engine.
- 2 car inspectors caught between cars.
- 1 clerk struck by train while crossing track.
- 1 engine hostler while under engine.

These men were killed by the following roads:

B. & O.....	1
C. & O.....	4
C., C., C. & St. L.....	6
C., I. & S.....	1
L. S. & M. S.....	3
Vandalia	1
Wabash	2
P., F. W. & C.....	2
P., C., C. & St. L.....	7
L. E. & W.....	3
E. & T. H.....	1
C., H. & D.....	1

These figures show that the Pennsylvania Lines, P., F. W. & C. included, report a total of nine employees killed, three more than were killed by the C., C., C. & St. L. during the same period. This may be due to the fact that the Pennsylvania Railroad Company employs, to start with, a great many inexperienced men and a num-

ber of them are killed before they fully realize the hazardous employment they are engaged in.

No employes were killed on the interurban railroads during this quarter.

Table No. 5 shows that there were forty-two trespassers killed on steam railroads during this quarter, while only twenty-nine were killed for the corresponding quarter of 1910.

Table No. 7, which gives in detail the casualties on interurban railroads, shows quite an improvement. It will be noted that there were only four deaths from accidents in all, and that all of these were trespassers on the tracks of these companies.

The Railroad Commission again directs the attention of officers and men to the work done by the Committee of Safety on the Chicago and Northwestern Railroad. If the officers and men of this company shall continue to show such results as have been attained during the last nine months, it clearly appears that this system of preventing accidents is a good one, and should be adopted by the railroad companies generally of this country. We regard it as very important that attention shall be given to this matter, and we have urged two or three of the companies operating in this State to put this plan in force in order that it may be clearly shown what can be accomplished by this means.

The Commission earnestly invites information from any quarter whatever, that may aid the Commission or its inspectors in carrying on the important work of preventing railroad accidents in this State.

TABLE No. 1.

**Steam and Electric Railroad Companies Not Reporting Any
Accidents for Months of January, February
and March, 1911.**

Southern Indiana R. R. Co.
 Chicago & Wabash Valley Ry. Co.
 St. Joseph Valley Ry. Co.
 New Jersey, Indiana & Illinois R. R. Co.
 Louisville, New Albany & Corydon Ry. Co.
 Central Indiana Ry. Co.
 Elwood, Anderson & LaPelle R. R. Co.
 Chicago Terminal Transfer Co.
 Syracuse & Milford R. R. Co.
 Louisville & Southern Indiana Traction Co.
 Louisville & Northern Railway & Lighting Co.
 Evansville Suburban & Newburg Ry. Co.
 Cincinnati, Bluffton & Chicago R. R. Co.
 Ft. Wayne & Springfield Ry. Co.
 Evansville & Southern Traction Co.
 Angola Railway & Power Co.
 Muncie & Portland Trac. Co.
 Marion, Bluffton & Eastern Trac. Co.
 Evansville & Mt. Vernon Trac. Co.
 Evansville Railways Co.
 Winona Interurban Ry. Co.
 Chicago, New York Electric Air Line Co.
 Cincinnati, Lawrenceburg & Aurora Trac. Co.
 Ft. Wayne & Wabash Valley Trac. Co.
 Hammond, Whiting & East Chicago Ry. Co.

TABLE No. 2.

STEAM RAILROADS.

Casualties to PASSENGERS, January, February and March, 1911.

WHERE, ETC.—	1910 3d Qr.	1911 3d Qr.
On passenger trains	53	121
On freight trains.....	0	2
On station grounds	1	0
Postal and expressmen.....	5	0
CAUSES—		
Collisions	22	90
Derailments	14	2
Getting on and off moving trains.....	12	11
Getting on and off trains after stops are made.....	2	4
Defective and unlighted stations and platforms.....	0	0
Miscellaneous	9	14
RESULTS—		
Deaths	0	0
Loss of limbs.....	0	1
Loss of fingers or toes.....	1	2
Spinal injury	2	0
Fractures or dislocations.....	5	4
Sprains	4	13
Cuts and bruises.....	44	79
Miscellaneous	3	22

TABLE No. 3.

STEAM RAILROADS.

Casualties to TRAVELERS ON HIGHWAY, January, February and March, 1911.

WHERE—	1910 3d Qr.	1911 3d Qr.
In vehicles	10	35
On foot	5	10
CAUSES—		
Struck on crossing.....	14	39
Teams frightened	0	1
Defective crossings	0	0
Miscellaneous	1	5

RESULTS—

Deaths	7	9
Loss of limbs.....	1	1
Loss of fingers or toes.....	0	0
Spinal injuries	0	0
Fractures or dislocations.....	3	4
Sprains	0	2
Cuts and bruises.....	2	28
Miscellaneous	2	1

TABLE No. 4.

STEAM RAILROADS.

EMPLOYEES Killed or Injured During January, February and March, 1911.

EMPLOYMENT—	1910 3d Qr.	1911 3d Qr.
Conductors	29	24
Enginemen	32	24
Firemen	78	69
Brakemen, roads and yards.....	191	162
Mechanics	21	23
Warehousemen	0	0
Laborers	60	69
Miscellaneous	12	0

CAUSES—

Coupling and uncoupling.....	28	10
Collisions	60	43
Derailments	18	17
Getting on and off trains.....	43	42
Caught in frogs and switches.....	0	0
Use of tools and machinery.....	5	27
Overhead obstructions	1	2
Falling from cars.....	30	42
Side obstructions	15	11
Miscellaneous	209	154
Defective tools and appliances.....	13	0
Struck by passing trains.....	0	23

RESULTS—

Deaths	29	32
Loss of limbs.....	8	8
Loss of fingers or toes.....	5	8
Spinal injuries	10	0
Fractures or dislocations.....	44	37
Sprains	59	84
Cuts and bruises.....	232	179
Scalds and burns.....	20	10
Miscellaneous	15	13

TABLE No. 5.

STEAM RAILROADS.

TRESPASSERS Killed or Injured During January, February and March, 1911.

WHERE—	1910 3d Qr.	1911 3d Qr.
On tracks	50	54
On trains	8	5
Miscellaneous	1	11
RESULTS—		
Death	29	42
Loss of limbs.....	2	2
Loss of fingers or toes.....	1	1
Spinal injuries	1	0
Fractures or dislocations.....	6	4
Sprains	2	1
Cuts and bruises.....	18	18
Miscellaneous	0	2

LICENSEES Killed or Injured During January, February and March, 1911.

WHERE—	1910 3d Qr.	1911 3d Qr.
Station grounds, etc.....	8	6
On freight train.....	0	1
CAUSES—		
Collision	2	2
Miscellaneous	6	5
RESULTS—		
Deaths	6	0
Cuts and bruises.....	2	3
Sprains	0	4

TABLE No. 6.

STEAM RAILROADS.

Showing **RESULTS** and **CAUSES** of Accidents During January, February and March, 1911.

RESULTS, TOTAL—				
	Deaths.	Loss of Limbs.	Loss of Fingers or Toes.	Spinal Injuries.
Passengers	0	1	2	0
Travelers on highways.....	9	1	0	0
Employees	32	1	8	0
Trespassers	42	8	1	0
	—	—	—	—
Total	83	11	11	0

RESULTS, TOTAL—				
	Fractures or Dislocations.	Sprains.	Cuts and Bruises.	Miscellaneous.
Passengers	4	13	79	22
Travelers on highways.....	4	2	28	1
Employees	37	84	179	13
Trespassers	4	1	18	2
	—	—	—	—
Total	49	100	304	48

CAUSE, TOTAL—					
	Collisions.	Derailments.	Getting on and Off Moving Trains.	Getting On and Off After Stops are Made.	Miscellaneous.
Passenger trains.....	90	2	11	4	14
Freight trains	43	17	42	0	154
	—	—	—	—	—
Total	133	19	53	4	168

CAUSE, TOTAL—						
	Coupling and Un-coupling.	Caught in Frogs and Switches.	Use of Tools and Machinery.	Overhead Obstructions.	Fell From Cars.	Side Obstructions.
Passenger trains.....	0	0	0	0	0	0
Freight trains.....	19	0	27	2	42	11
	—	—	—	—	—	—
Total	10	0	27	2	42	11

		Defective Tools and Appliances.
Passenger trains		0
Freight trains		0
		—
Total		0

Total damage to engines, cars and roadway.....	\$31,308 18
Total number wrecks, collisions, 30; derailments, 27.....	57

TABLE No. 7.

ELECTRIC INTERURBAN RAILROADS.

**CASUALTIES on the INTERURBAN RAILROADS During
January, February and March, 1911.**

PASSENGERS.

WHERE—	1910 3d Qr.	1911 3d Qr.
On passenger trains.....	31	15
On station grounds.....	0	0
CAUSES—		
Collisions	29	8
Derailements	0	3
Getting on and off moving trains.....	2	1
Getting on and off trains after stops are made.....	0	1
Miscellaneous	0	2
RESULTS—		
Deaths	0	0
Fractures and dislocations.....	0	0
Sprains	0	1
Cuts and bruises.....	31	1
Miscellaneous	0	13

HIGHWAYS.

WHERE—		
In vehicles	8	6
On foot	3	2
CAUSES—		
Struck on crossing.....	9	7
Teams frightened	2	0
Miscellaneous	0	1
RESULTS—		
Deaths	4	0
Sprains	1	2
Cuts and bruises.....	4	4
Miscellaneous	2	1
Loss of limb.....	0	1

EMPLOYEES.

EMPLOYMENT—		
Conductors	1	2
Motormen	3	3
Laborers	2	2

CAUSES—	1910 3d Qr.	1911 3d Qr.
Collisions	2	1
Miscellaneous	4	1
Getting on and off trains.....	0	2
Derailment	0	3
RESULTS—		
Deaths	1	0
Fractures or dislocations.....	1	1
Sprains	0	1
Cuts and bruises.....	4	5
Miscellaneous	0	0

TO TRESPASSERS.

WHERE—		
Trespassers on tracks.....	6	7
Miscellaneous	1	1
RESULTS—		
Deaths	3	4
Fractures or dislocations.....	4	1
Cut and bruised	0	2

TABLE No. 8.

The Following Table Shows the **TOTAL CASUALTIES** on the
INTERURBAN ROADS, January, February and
March, 1911.

	1910 3d Qr.	1911 3d Qr.
Deaths	8	4
Injured	47	33

TABLE No. 9.

TOTAL CASUALTIES on ALL RAILROADS.

DEATHS.

	1910 3d Qr.	1911 3d Qr.
Steam railroads	65	83
Electric railroads	8	4
Total	73	87

INJURED.

Steam railroads	490	429
Electric railroads.....	47	33
Total	537	462

Accident Bulletin No. 16.

RAILROAD ACCIDENTS IN THE STATE OF INDIANA DURING APRIL, MAY AND JUNE, 1911.

The railroads of this State made a good record for the quarter ending June 30, 1911. On the electric railroads not a passenger was killed. On the steam railroads not a passenger was killed by the fault of the companies. On the C., I. & L. R. R. the dead body of Murel J. Hopkins, age 19 years, was found by the crew in charge of Monon switch engine No. 10 at 4:45 a. m. May 8. It is supposed that this man fell from some southbound passenger train, but so far as we can ascertain the fault of this man's death is not with the railroad company or its men; and, so also on the Lake Shore and Michigan Southern Railroad on April 14, Antonia Arena, when the conductor called Gary station, was seen by his companions to leave his seat and go to the front platform of the first car behind the engine before the train stopped for the station. This was the last time he was seen alive. He was found dead under the fifth car from the engine when the train had stopped.

While it seems that no passengers were killed during the quarter, Table No. 2 shows that 65 passengers were injured on passenger trains on the steam railroads, while for the corresponding quarter of 1910 only 24 passengers were injured. The greatest number were injured by the following roads:

April 5, L. S. & M. S., derailment at Moorehouse, 6 passengers injured.

May 21, C., C., C. & St. L., collision near Lafayette, 7 passengers injured.

May 28, B. & O. S. W., collision near North Vernon, 7 passengers injured.

June 6, P., C., C. & St. L., collision at Columbus, 9 passengers injured.

EMPLOYEES.

We are glad to set out in Table No. 4 an important decrease in the number of deaths of employes, 32 having been killed for the quarter ending June 30, 1910, while 22 were killed for the quar-

ter ending June 30, 1911, a decrease of 10. These employes came to their death in the following manner:

One conductor, while working with chained up car, alighting from engine fell under train.

One fireman, derailment at interlocking plant.

One fireman, main track collision.

One brakeman, derailment at interlocking plant.

Two brakemen, while working with chained up car.

One brakeman, attempting to get on pilot of engine.

One brakeman, struck by train.

One brakeman, while riding on broken beam fell off.

One brakeman, riding on pilot of engine.

One brakeman, fell from cars.

One brakeman, getting off train.

Two brakemen, yard collisions.

One brakeman, caught between cars and tender.

One brakeman, uncoupling cars.

One laborer, run over by car.

One laborer, fell from handcar.

One laborer, no known cause.

Two laborers, struck by train.

One laborer, struck between engine and tender.

Note also that there was one employe killed on the traction line; namely, one laborer unloading cross-arms.

These men were killed while working on the following railroads:

B. & O. S.-W.....	1
C., C., C. & St. L.....	2
E., J & E.....	2
T. H. Belt.....	3
Indianapolis Southern.....	1
L. & N.....	1
L. S. & M. S.....	2
L. E. & W.....	2
P., Ft. W. & C.....	2
P., C., C. & St. L.....	2
Southern	1
T., St. L. & W.—	
Vandalia	1
Wabash	2

In presenting this bulletin to the public and to the railroad men of this State, the Railroad Commission of Indiana is glad to call attention to the fact that the prevention of railroad accidents is receiving far more consideration than when we issued our first accident bulletin four years ago. The waste of human life, the tragedy and uselessness of the loss of many lives on the railroads, the passing of good men before their time, has caused and is causing railroad commissions and railroad companies and officials and railroad men to take steps to stop these fatalities. The Chicago and Northwestern Railroad Co. is one of the pioneers. Mr. R. C. Richards, one of its officers, is giving the thought and attention of a good and able man of long experience in this line to this subject. His statement recently made to the Chairman of this Commission shows a decrease of 58 killed and 1,636 injured during ten months' operation of his railroad. A great deal of this may be attributed to the work of committees of safety established by Mr. Richards on the Northwestern Railroad. We do not mean to be invidious, for other companies are working in the same direction. Mr. J. Kruttschnitt, General Manager of the Harriman lines, has asked this Commission for all of its accident bulletins. In a letter of recent date to this Commission, Mr. A. W. Thompson, General Manager B. & O. R. R., with reference to committees of safety says:

The Chicago Northwestern has been giving this matter especial attention for some two or three years, while we have been analyzing all accidents, no matter whether the damage was heavy or slight, and also investigating the cause of all personal injuries only since about the first of the year; we therefore desire more detailed statistics before we take the next step. We have several ideas in mind, but first prefer to have more data upon which to base our conclusions. We are familiar with the methods in use on the Chicago Northwestern.

I thank you again for your offer of co-operation, of which we will gladly avail ourselves.

What is more important, during this quarter the Chicago, Indianapolis & Louisville Ry. Co., following conferences between the Chairman of this Commission and the officers of that company, and under the direct supervision of the efficient president, Mr. Fairfax Harrison, has actually established Committees of Safety and Efficiency. The Monon circular on this subject, from which we take the liberty to quote, seeks to establish a relationship between the officers and men that is greatly commendable. The

following extract is worthy of serious thought by every railroad man who shall read it:

The officials want you to feel that there is no high fence between them and the men. They have the interest of the men at heart, and this feeling should be mutual. No matter how good the officials, if they have not got the support and confidence of the men, their administration is not successful, and no matter how good the men, if they have not got the officials who will deal with them justly and who have not got confidence in their men, there can be no success. As I have stated before, we feel that we have the loyalty, support and confidence of the men, and you have ours. The officials want you to feel that the latch-string is always on the outside, to the laborer as well as any of the other employees.

One of the first requisites in railroad operation is safety, both as to employees and passengers in their cars as well as property in their charge. A great many of the personal injuries are caused through carelessness, which through a little forethought could have been avoided, and every employe should always bear in mind that in performing any duty the first consideration should be safety, and if any employe sees anything that is liable to affect safe operations, it should be brought to the attention of the proper officials or to the attention of the Safety and Efficiency Committee, who will take action on it or make their recommendations to the general committee. If any official or employe finds any employe taking unnecessary risks in the performance of his duties, his attention should be called to it. If you see anything in the way of appliances or obstructions which make the performance of your duty hazardous and unsafe, it should be brought to the attention of the proper official and the Safety and Efficiency Committee. Safety is greatly a matter of education, and if every employe, foreman and heads of departments will take an interest in this we are assured of great results, and it will require the constant and hearty co-operation of everyone to bring this about.

It is to be noted also that the Interstate Commerce Commission now requires reports of accidents to be made to it, and that it is seeking the co-operation of the State commissions in the investigation of accidents. Our own commission has agreed to conduct, where it is expedient, joint investigations, and to afford the Interstate Commerce Commission all possible co-operation in the national work it shall do to prevent accidents. The truth is, it matters less who does this work, the national commission, the State commissions, or railroad officers and men, so that it is done; and, we think also that wherever there is earnest thought and careful work to prevent fatalities of this sort, these should be greatly commended.

Most of the railroad companies under our jurisdiction are co-operating with this Commission. We are glad to say that very

rarely we find a railroad officer selfish in himself, careless and indifferent to the fate of his men, and not very often do we now find a railroad man performing his duties in a slovenly and unobservant way, as careless of his own life as he is of the lives of others. The day of such men is passing away. The railroad general manager or superintendent who fails to scrutinize every accident on his lines, who fails to take steps in advance of the accident that will prevent same, who fails to feel sympathy and regret when his men are killed or injured, is getting to be like the oil headlight, a relic of the past. The railroad desperado or tramp, full of bad whiskey and meaner thoughts, worth little to himself or anybody else, standing on the track in front of an approaching engine, riding on the pilot of an engine, doing his work with his mind on other things, all of these, under the influence of railroad progress and advance, and under the influence of the best brotherhoods among the railroad men, are passing away, we hope never to return.

The best railroad man of this day and age is a conscientious man, a disciplinarian, a competent man, a man who will not only obey orders but exact obedience if he is in authority where obedience is due, to the end always that the dangerous occupation of operating trains on the railroads may be done with as little loss of life and limb as is possible.

And so, as said above, with all of these influences working in the right direction we are optimistic, and as the years go on there will be a decreasing instead of an increasing list of men killed on and about the railroads of this country.

NOTE.—In our Accident Bulletin No. 15, page 4, we made the following statement:

“These figures show that the Pennsylvania Lines, P., F. W. & C. included, report a total of nine employes killed, three more than were killed by the C., C., C. & St. L. during the same period. This may be due to the fact that the Pennsylvania Railroad Co. employs, to start with, a great many inexperienced men and a number of them are killed before they fully realize the hazardous employment they are engaged in.”

This statement has been criticised on the following grounds:

First: That the mileage of the Pennsylvania Company in Indiana is 848 miles, while the mileage of the C., C., C. & St. L. is 690 miles.

Second. That the figures were based only on one quarter, which is hardly sufficient time for the purpose of a comparison.

The length of service of the seven men killed on the Pennsylvania has also been given to us, as follows:

<i>Name.</i>	<i>Age.</i>	<i>Length of Service.</i>
Charles H. Gibson.....	22 years.	3 years.
L. E. Brugh.....	23 years.	3 years.
G. D. Veach.....	23 years.	1 year.
G. H. Sterrett.....	53 years.	14 years.
J. W. Phelps, Jr.....	30 years.	5½ years.
S. S. Nydam.....	23 years.	1 month.
Wm. J. Lewis.....	31 years.	2½ years.

Above all things, this Commission desires to be fair, and not to make comparisons between railroad companies which are not fully justified by the facts and figures. We are glad, therefore, to make the above statement, and we desire to have it considered in connection with the statement made and quoted above in our Accident Bulletin No. 15.

TABLE No. 1.

-
1. Chicago & Wabash Valley.
 2. St. Joseph Valley.
 3. Syracuse & Milford.
 4. Ohio Electric Ry.
 5. Evansville Rys.
 6. Angola Ry. & Power Co.
 7. Evansville and Southern Ind.
 8. Marion, Bluffton & Eastern.
 9. Gary Interurban Ry.
 10. Louisville, N. Albany & Corydon.
 11. Louisville & Northern Railway & Light Co.
 12. Louisville & Southern Ind. Traction Co.
 13. Cincinnati, Bluffton & Chicago.
 14. N. J., I. & I. R. R.
 15. Lebanon & Thorntown.

TABLE No. 2.

STEAM RAILROADS.

Casualties to PASSENGERS, April, May and June, 1910 and 1911.

WHERE, ETC.—	1910 4th Qr.	1911 4th Qr.
On passenger trains.....	24	66
On freight trains.....	3	3
On station grounds.....	1	1
Postal and expressmen.....	3	7
CAUSES—		
Collisions	4	35
Derailments	0	10
Getting on and off moving trains.....	10	10
Getting on and off trains after stops are made.....	0	9
Defective and unlighted stations and platforms.....	0	0
Miscellaneous	17	14
RESULTS—		
Deaths	0	2
Loss of limbs.....	1	0
Loss of fingers or toes.....	1	1
Spinal injury	1	0
Fractures or dislocations.....	2	4
Sprains	1	12
Cuts and bruises.....	25	55
Miscellaneous	0	2

TABLE No. 3.

STEAM RAILROADS.

Casualties to TRAVELERS ON HIGHWAYS, April, May and June, 1910 and 1911.

WHERE—	1910 4th Qr.	1911 4th Qr.
In vehicles	26	39
On foot	5	7
CAUSES—		
Struck on crossings.....	27	45
Teams frightened	2	9
Defective crossings	0	0
Miscellaneous	2	1

RESULTS—

Deaths	8	14
Loss of limbs	0	3
Loss of fingers or toes.....	0	0
Spinal injuries	0	0
Fractures or dislocations.....	2	3
Sprains	1	2
Cuts and bruises.....	18	27
Miscellaneous	2	1

TABLE No. 4.

STEAM RAILROADS.

**EMPLOYEES Killed or Injured During April, May and June,
1910 and 1911.**

EMPLOYMENT—	1910 4th Qr.	1911 4th Qr.
Conductors	44	24
Enginemen	18	25
Firemen	62	45
Brakemen, roads and yards.....	152	157
Mechanics	8	12
Warehousemen	0	0
Laborers	88	64
Miscellaneous	3	1

CAUSES—

Coupling and uncoupling	15	10
Collisions	20	21
Derailments	8	40
Getting on and off trains.....	44	52
Caught in frogs and switches.....	2	0
Use of tools and machinery	20	27
Overhead obstructions	0	2
Falling from cars.....	37	24
Side obstructions	16	17
Miscellaneous	205	147
Defective tools and appliances.....	8	4

RESULTS—

Deaths	32	23
Loss of limbs	6	6
Loss of fingers or toes.....	3	5
Spinal injuries	0	0
Fractures or dislocations.....	39	29
Sprains	76	76
Cuts and bruises.....	200	164
Miscellaneous	5	22
Scalds	14	14

TABLE No. 5.

STEAM RAILROADS.

**TRESPASSERS Killed or Injured During April, May and June,
1910 and 1911.**

WHERE—	1910 4th Qr.	1911 4th Qr.
On tracks	48	54
On trains	28	29
Miscellaneous	1	1
RESULTS—		
Deaths	45	57
Loss of limbs	6	6
Loss of fingers or toes.....	0	4
Spinal injuries	0	0
Fractures or dislocations.....	8	3
Sprains	1	1
Cuts and bruises.....	17	19
Miscellaneous	0	10

**LICENSEES Killed or Injured During April, May and June,
1910 and 1911.**

WHERE—	1910 4th Qr.	1911 4th Qr.
Station grounds, etc.....	2	5
On passenger trains.....	1	0
Freight trains.....	1	3
CAUSES—		
Collision	0	0
Miscellaneous	0	8
RESULTS—		
Deaths	2	1
Cuts and bruises.....	2	7

TABLE No. 6.

STEAM RAILROADS.

RESULTS AND CAUSES of Accidents During April, May and June, 1911.

RESULTS, TOTAL—	Death. 1911.	Loss of Limbs. 1911.	Fingers or Toes. 1911.	Spiral Injuries. 1911.
Passengers	2	0	1	0
Travelers on highways.....	14	0	0	0
Employees	23	6	5	0
Trespassers	57	6	4	0
—	—	—	—	—
Total	96	12	10	0
RESULTS, TOTAL—	Fatals or Dislocations. 1911.	Sprains. 1911.	Cuts and Bruises. 1911.	Miscella- neous. 1911.
Passenger	4	11	52	2
Travelers on highways.....	3	2	26	1
Employees	30	76	164	17
Trespassers	3	1	19	0
—	—	—	—	—
Total	40	90	261	20
CAUSE, TOTAL—	Collisions.	Derail- ments.	Getting On and Off Mov- ing Trains.	Getting On and Off After Stops are Made.
Passenger trains	31	10	10	7
Freight trains	20	37	51	0
—	—	—	—	—
Total	51	47	61	7
CAUSE, TOTAL—	Miscellaneous. 1911.	Coupling and Uncoupling. 1911.	Caught in Frogs and Switches. 1911.	Use of Tools and Machinery. 1911.
Passenger trains	17	0	0	0
Freight trains	143	10	0	28
—	—	—	—	—
Total	157	10	0	28
CAUSE, TOTAL—	Overhead Obstructions. 1911.	Fell from Cars. 1911.	Side Obstructions. 1911.	Defective Tools and Appliances. 1911.
Passenger trains	0	0	0	0
Freight trains	2	24	17	4
—	—	—	—	—
Total	2	24	17	4
Total number of wrecks.....				53
Total damage to equipment and roadway.....				\$31,663 16

TABLE No. 7.

ELECTRIC INTERURBAN RAILROADS.

Casualties During April, May and June, 1910 and 1911.

PASSENGERS.

WHERE—	1910 4th Qr.	1911 4th Qr.
On passenger trains	13	43
On station grounds	1	1
CAUSES—		
Collisions	4	18
Derailments	0	6
Getting on and off moving trains	8	8
Getting on and off trains after stops are made.....	0	0
Miscellaneous	2	12
RESULTS—		
Deaths	1	0
Fractures or dislocations	1	5
Sprains	2	3
Cuts and bruises	10	29
Miscellaneous	0	7

TRAVELERS ON HIGHWAYS.

WHERE—	1910 4th Qr.	1911 4th Qr.
Travelers on highways in vehicles.....	6	10
On foot	3	1
CAUSES—		
Struck on crossings	5	11
Teams frightened	2	0
Miscellaneous	2	0
RESULTS—		
Deaths	3	2
Sprains	1	1
Cuts and bruises	5	8
Miscellaneous	0	0

EMPLOYEES.

EMPLOYMENT—	1910 4th Qr.	1911 4th Qr.
Conductors	4	6
Motormen	1	5
Laborers	1	6

CAUSES—	1910 4th Qr.	1911 4th Qr.
Collisions	3	6
Miscellaneous	1	7
Coupling and uncoupling	2	0
Getting on and off cars	0	4

RESULTS—		
Deaths	1	1
Fractures or dislocations	0	2
Sprains	0	2
Cuts and bruises	5	12
Miscellaneous	0	0

TRESPASSERS.

WHERE—	1910 4th Qr.	1911 4th Qr.
Trespassers on tracks	9	6
Miscellaneous	0	1

RESULTS—		
Deaths	5	5
Fractures or dislocations	1	1
Cuts and bruises	3	1

Collisions	1911 4th Qr.
Derailments	4
Damage to property, \$2,295.00.	1

TABLE No. 8.

ELECTRIC ROADS.

TOTAL CASUALTIES on All Interurbans.

	1910 4th Qr.	1911 4th Qr.
Deaths	10	8
Injured	38	71

TABLE No. 9.

STEAM AND ELECTRIC RAILROADS.

TOTAL CASUALTIES on All Railroads.

DEATHS.

	1910 4th Qr.	1911 4th Qr.
Steam roads	85	93
Electric roads	10	8
Total	95	101

INJURED.

Steam roads	510	450
Electric roads	38	71
Total	548	521

TABLE No. 10.

**TOTAL CASUALTIES on All STEAM ROADS for Years
Ending June 30, 1910, and June 30, 1911.**

	Deaths.		Injuries.	
	1910	1911	1910	1911
Passengers	0	8	271	421
Travelers on highways	42	52	94	137
Employees	111	132	1,427	1,486
Trespassers	164	198	133	135
Total	317	390	1,925	2,179

**TOTAL CASUALTIES on All ELECTRIC INTERURBAN Roads
for Years Ending June 30, 1910 and June 30, 1911.**

	Deaths.		Injuries.	
	1910	1911	1910	1911
Passengers	7	50	116	151
Travelers on highways	13	9	30	35
Employees	9	7	25	50
Trespassers	24	28	15	13
Total	43	94	186	249
Total number on steam and electric lines....	360	390	2,111	2,179

Accident Bulletin No. 17.

RAILROAD ACCIDENTS IN THE STATE OF INDIANA DURING JULY, AUGUST AND SEPTEMBER, 1911.

Table No. 1.—For the third quarter, 1910, 9 roads reported no accidents; for the same quarter in 1911, 13 roads report no accidents.

Table No. 2.—Third quarter, 1910, there were 128 passengers injured on passenger trains; third quarter, 1911, number of passengers injured reduced to 99.

In the causes given for injuries to passengers, Table No. 2, third quarter, 1910, shows passengers injured in collisions 90; third quarter, 1911, reduces number of passengers injured in this way to 14. There is a heavy increase of injury to passengers in derailments for the third quarter in 1911. We show 51 passengers injured in derailments in 1911 as against 4 in 1910. This can be explained on account of the P., F. W. & C. R. R. injuring 38 passengers when their 18-hour train No. 28 left the track at Ft. Wayne on August 13, 1911. The Big Four also injured 10 people in a derailment at Brookville, July 15, 1911. In results Table No. 2, third quarter, 1910, shows 3 passengers killed; third quarter, 1911, shows 1 passenger killed. The railroad company could hardly be held responsible for this death. The explanation as given by the general superintendent of the L. E. & W. is as follows: "Mrs. Matilda Hall was a passenger on an excursion train returning from Chicago, and when train was passing over a bridge north of Cassville she fell from platform of coach and was killed. There was a seat in the coach for the passenger; she had gone to the platform several times, possibly for air."

The third quarter, 1910, shows 67 passengers cut and bruised on account of passenger train accidents. Third quarter, 1911, increased this number to 88. This increase can also be charged to the P., F. W. & C. accident at Fort Wayne.

In miscellaneous results passengers injured for the third quarter, 1910, we have 45 passengers injured, while the third quarter, 1911, shows but 2. This should, in a very great measure, offset the increase in number of persons cut and bruised.

Table No. 3, Casualties to Travelers on Highways.—For the third quarter, 1910, shows 43 people injured in vehicles; third quarter, 1911, reduces this number to 25. Causes given for these highway accidents third quarter, 1910, shows 48 people injured were struck on crossings; this number is reduced to 38 in the third quarter, 1911. The highway crossing signs may have something to do with this.

In results for Table No. 3 there were 19 people killed in the third quarter, 1910, and only 11 people killed third quarter, 1911.

Table No. 4, Steam Roads.—Number of conductors injured and killed for the third quarter, 1910, was 42; same quarter, 1911, 27, a material decrease. The enginemen were not so fortunate. The third quarter, 1910, shows 32, while the third quarter, 1911, shows 42. There is a noted decrease of injuries to laborers. The third quarter, 1910, shows 106 laborers, while the third quarter, 1911, had but 63. In causes for injuries to employes the use of tools and machinery begins to cut quite a figure; the third quarter, 1910, had a total of 11 and the third quarter, 1911, shows a total of 41. Miscellaneous causes for injuries to employes have been decreased materially. The third quarter, 1910, shows 237; third quarter, 1911, shows 144. We also have a new cause showing up in the third quarter of 1911, injuring 4 employes; this is defective tools and appliances.

Table No. 5, Trespassers Killed or Injured by Steam Roads.—Shows 67 people on tracks for the third quarter, 1911, against 85 for the third quarter, 1910. In the result of Table No. 5 we show a total of 53 deaths for the third quarter, 1911, as against 65 for the third quarter, 1910.

Table No. 7, for the Electric Lines.—Number of passengers injured for the third quarter, 1910, was 100; only 24 injured during the third quarter of 1911. Causes for these injuries show very clearly why the number is decreased materially; third quarter, 1910, shows 96 injured in collisions, while the third quarter, 1911, they had but 10 injured in collisions. The results for interurban accidents third quarter, 1910, show 50 people killed; third quarter, 1911, they did not kill a passenger. The number of passengers receiving cuts and bruises reduced from 47 to 20. The interurban people were unfortunate in injuring passengers on highways. Third quarter, 1911, travelers in vehicles struck on highways, 22, compared with 14 in third quarter, 1910. The results of third quarter, 1911, and 1910, were the same, 5 deaths.

Trespassers killed by interurban lines third quarter, 1910, were 12, and for third quarter, 1911, was 7.

Steam roads on which passengers were killed third quarter, 1911, L. E. & W., 1; cause, passenger falling from train between stations. Passenger had a seat in car, but for some unknown reason had gone out on platform and in some way fell from train.

Steam roads on which employees were killed during the third quarter, 1911:

B. & O.....	1
B. & O. S.-W.....	2
C. & E.....	3
C. & O.....	1
C., I. & L.....	3
C., T. H. & S. E.....	1
G. R. & I.....	1
L. & N.....	1
L. S. & M. S.....	1
L. E. & W.....	2
M. C.....	1
N. Y., C. & St. L.....	1
P., C., C. & St. L.....	1
P., F. W. & C.....	5
P. & E.....	3
Vandalia	1

Manner in which employees met death, as follows:

- 1 conductor fell from train.
- 1 engineer caught between cars.
- 1 engineer fell into turn table pit and was run over.
- 1 engineer while cleaning out gang-way of engine was struck by bridge
- 3 engineers, derailment of passenger trains.
- 1 baggagemaster, derailment of passenger train.
- 1 baggagemaster accidentally shot.
- 2 brakemen getting off pilot of engine.
- 1 brakeman fell from car.
- 2 brakemen struck by train while out flagging.
- 2 brakemen struck by train.
- 1 brakeman found dead in yards.
- 1 brakeman coupling cars.
- 1 yard clerk caught between cars.

- 1 yard clerk run over by cars.
- 1 carpenter caught between cars.
- 1 carpenter struck by an engine.
- 1 car repairman while at work under cars.
- 3 laborers struck by trains.
- 1 laborer fell from train.
- 1 laborer attempting to board train.

INTERURBANS.

Employes killed:

- 1 conductor fell from car.
- 1 laborer struck by car.

Attention is especially called to Table No. 8, and the encouraging showing made thereby.

TABLE No. 1.

**Steam and Electric Railroad Companies Not Reporting any
Accidents for Months of July, August and
September, 1911.**

Chicago-New York Electric Air Line.
 Lebanon & Thorntown Traction Co.
 Cincinnati, Lawrenceburg & Aurora Traction Co.
 Marion, Bluffton & Eastern Traction Co.
 Winona Interurban Co.
 Evansville & Southern Traction Co.
 Ohio Electric.
 St. Joseph Valley Ry. Co.
 Chicago & Wabash Valley Ry. Co.
 New Jersey, Indiana & Illinois Ry. Co.
 Syracuse & Milford Ry. Co.
 Angola Ry.
 Louisville, New Albany & Corydon Ry.

TABLE No. 2.

STEAM RAILROADS.

Casualties to PASSENGERS, July, August and September, 1911.

WHERE—	1910.	1911.
On passenger trains	128	99
On freight trains	2	6
On station grounds	4	3
Postal and express men	0	0
CAUSES—		
Collisions	90	14
Derailments	4	51
Getting on and off moving trains	21	13
Getting on and off moving trains after stops are made	3	3
Defective and unlighted stations and platforms.....	0	0
Miscellaneous	16	27
RESULTS—		
Deaths	3	1
Loss of limbs	1	0
Loss of fingers or toes	1	0
Spinal injury	0	0
Fractures or dislocations	1	4
Sprains	16	12
Cuts and bruises	67	88
Miscellaneous	45	2
Scalds and burns	0	1

TABLE No. 3.

STEAM RAILROADS.

Casualties to TRAVELERS ON HIGHWAYS, July, August and September, 1911.

WHERE—	1910.	1911.
In vehicles	43	25
On foot	9	15
CAUSES—		
Struck on crossings	48	38
Teams frightened	0	1
Defective crossings	0	0
Miscellaneous	4	1

RESULTS—	1910.	1911.
Deaths	19	11
Loss of limbs	1	0
Loss of fingers or toes	0	1
Spinal injuries	0	0
Fractures or dislocations	6	4
Sprains	1	1
Cuts and bruises	24	23
Miscellaneous	1	0

TABLE No. 4.

STEAM RAILROADS.

EMPLOYEES Killed or Injured During July, August and September, 1911.

EMPLOYMENT—	1910.	1911.
Conductors	42	27
Enginemen	32	42
Firemen	70	52
Brakemen, roads and yards.....	186	187
Mechanics	10	17
Warehousemen	0	0
Laborers	106	63
Miscellaneous	2	15

CAUSES—

Coupling and uncoupling	15	15
Collisions	62	28
Derailements	15	53
Getting on and off trains.....	42	52
Caught in frogs and switches.....	0	0
Use of tools and machinery.....	11	41
Overhead obstructions	1	2
Falling from cars	46	29
Side obstructions	17	15
Miscellaneous	237	144
Defective tools and appliances	0	4
Struck by passing trains	0	20

RESULTS—

Deaths	39	28
Loss of limbs	4	8
Loss of fingers or toes.....	5	9
Spinal injuries	1	1
Fractures or dislocations	44	37
Sprains	81	77
Cuts and bruises	245	229
Miscellaneous	4	4
Scalds and burns	15	10

TABLE No. 5.

STEAM RAILROADS.

TRESPASSERS Killed or Injured During July, August and September, 1911.

WHERE—	1910.	1911.
On tracks	86	67
On trains	31	36
Miscellaneous	0	0

RESULTS—

Deaths	65	53
Loss of limbs	11	11
Loss of fingers or toes.....	0	3
Spinal injuries	1	0
Fractures or dislocations	2	13
Sprains	2	3
Cuts and bruises	36	20
Miscellaneous	1	0

LICENSEES Killed or Injured During July, August and September, 1911.

WHERE—	1910.	1911.
Station grounds, etc.....	15	14
On passenger trains	2	3
Freight trains	8	2

CAUSES—

Collision	9	5
Miscellaneous	15	14
Getting on and off moving trains.....	1	0

RESULTS—

Deaths	2	2
Cuts and bruises	15	10
Sprains	2	1
Fractures or dislocations	3	4
Miscellaneous	2	0
Loss of limb	1	2

TABLE No. 6.

STEAM RAILROADS.

RESULTS AND CAUSES of Accidents During July, August and September, 1911.

RESULTS, TOTAL—	Deaths.	Loss of Limbs.	Fingers or toes.	Spiral Injuries.
Passengers	1	0	0	0
Travelers on highways	11	0	1	0
Employees	28	8	9	1
Trespassers	53	11	3	0
Licensees	2	2	0	0
	—	—	—	—
Total	95	21	13	1

RESULTS, TOTAL—	Scalds and Burns.	Fractures or Dislocations.	Spans.	Cuts and Bruises.	Miscellaneous.
Passengers	1	4	12	88	2
Travelers on highways.....	0	4	0	23	0
Employees	10	37	77	229	4
Trespassers	0	13	3	20	0
Licensees	0	4	1	10	0
	—	—	—	—	—
Total	11	62	93	370	6

CAUSES, TOTAL—	Coupling and Uncoupling.	Caught in Floors and Switches.	Use of Tools and Machinery.	Overhead Obstructions.	Fell from Cars.	Side Obstructions.
Passenger trains.....	0	0	0	0	0	0
Freight trains.....	15	0	41	2	29	15
	—	—	—	—	—	—
Total	15	0	41	2	29	15

CAUSES, TOTAL—	Collisions.	Derailments.	Getting On and Off Moving Trains.	Getting On and Off After Stops are Made.	Miscellaneous.	Defective Tools and Appliances
Passenger trains.....	14	51	13	3	27	0
Freight trains.....	28	53	52	0	144	4
Licensees	5	2	0	0	12	0
	—	—	—	—	—	—
Total	47	106	65	3	183	4

Total damage to engines, cars and roadway.....\$89,184.55

TOTAL NUMBER WRECKS—

Derailments	23
Collisions	42

TABLE No. 7.

ELECTRIC INTERURBAN RAILROADS.

**CASUALTIES on the INTERURBAN RAILROADS During
July, August and September, 1911.**

PASSENGERS.

WHERE—	1910.	1911.
On passenger trains.....	100	24
On station grounds.....	9	0
CAUSES—		
Collisions	96	10
Derailements	0	5
Getting on and off moving trains.....	4	5
Getting on and off trains after stops are made.....	0	0
Miscellaneous	9	4
RESULTS—		
Deaths	50	0
Fractures or dislocations.....	4	3
Sprains	6	1
Cuts and bruises.....	47	20
Miscellaneous	2	0

TRAVELERS ON HIGHWAYS.

WHERE—	1910.	1911.
Travelers on highways in vehicles.....	14	22
On foot	2	1
CAUSES—		
Struck on crossings.....	16	21
Teams frightened	0	0
Miscellaneous	0	2
RESULTS—		
Deaths	5	5
Sprains	1	1
Cuts and bruises	9	11
Miscellaneous	0	5
Loss of limb	1	0
Loss of finger or toe.....	0	1

EMPLOYEES.

EMPLOYMENT—		
Conductors	4	3
Motormen	9	4
Laborers	3	4
Brakemen	0	3

CAUSES—	1910.	1911.
Collisions	13	5
Miscellaneous	5	6
Derailments	0	1
Use of tools and machinery.....	0	2

RESULTS—		
Deaths	4	2
Fractures or dislocations.....	0	1
Sprains	5	1
Cuts and bruises.....	9	7
Miscellaneous	0	1
Loss of limb.....	0	2

TRESPASSERS.

WHERE—	1910.	1911.
Trespassers on tracks.....	17	12
Miscellaneous	0	0

RESULTS—		
Deaths	12	7
Fractures or dislocations, and cuts and bruises.....	5	5
Collisions, 1. Damage, \$1,100.00.		

TABLE No. 8.

TOTAL CASUALTIES on ALL INTERURBANS.

	1910.	1911.
Deaths	71	14
Injured	89	59

TABLE No. 9.

TOTAL CASUALTIES on ALL RAILROADS.

DEATHS.

	1910.	1911.
Steam roads	128	95
Electric roads	71	14
Total deaths	199	109

INJURED.

	1910.	1911.
Steam roads	639	578
Electric roads	89	59
Total injured	728	637

Accident Bulletin No. 18.

RAILROAD ACCIDENTS IN THE STATE OF INDIANA DURING OCTOBER, NOVEMBER AND DECEMBER, 1911.

Table No. 1, Fourth Quarter, 1911, 17 roads report no accidents.

Table No. 1, Fourth Quarter, 1910, 17 roads report no accidents.

Table No. 2, Fourth Quarter, 1910, 99 passengers killed and injured, this includes 3 deaths.

Table No. 2, Fourth Quarter, 1911, 61 passengers killed and injured, this includes 4 deaths.

The B. & O. S. W. R. R. injured 16 passengers, slightly, in its accident to passenger train No. 4 at Washington, Indiana, October 16th; accident caused by yard crew leaving the switch set wrong.

The Michigan Central Railroad injured 7 passengers when their passenger train No. 37 was derailed at Hammond, Indiana, on October 23d; derailment was caused by engineer failing to notice the position of signal and seeing that derail was set against him at interlocking plant.

These two accidents bring the total number of injured passengers up to 61, and had it not been for these two accidents, we certainly would have had a very interesting report for this quarter. Four (4) passengers killed during the quarter are charged as follows:

C., C., C. & St. L. Ry. (White water Division), October 7th. Dorothy Chance, aged 5 years, standing on the platform of coach, engine coupled on to train and the child fell from the platform and was severely injured and died within a few hours. This was a mixed train. The evidence shows that the father of the child had gone into the coach two or three minutes before the accident happened, leaving the child on the platform.

Grand Trunk Western Railway, Train No. 4, December 20th, a man by the name of John Scints jumped through a window of the coach when the train was running. It is the opinion of the railroad officials that the man committed suicide. His body was run over by some train in the opposite direction and badly mutilated.

Lake Shore and Michigan Southern Railway, November 29th.

Train No. 16, Peter Schol. boarded this train at South Chicago, evidently intended going on Suburban Train No. 246, his destination being Pine, a station that No. 16 does not stop at. When No. 16 was nearing Pine station he walked out and into the vestibule, opened the trap door and jumped off while the train was moving about 40 miles per hour. Suburban Train No. 246 stopped and picked Schol up and took him to the hospital at Gary, where he died in about four hours.

C. M. Hudson was a passenger on Train No. 2 of the N. Y. C. & St. L. R. R., transportation reading Mentone to Argos. His remains were found on the south side of the track $1\frac{3}{4}$ miles west of Burkett. He had either fallen from Train No. 1 or was struck by some other train.

It will be noted of the four roads charged with the killing of passengers that the companies were not at fault. In every case the person killed is responsible for the death.

Table No. 3, Fourth Quarter, 1910, shows a total of 47 people killed and injured on highways; 40 of them being in vehicles, and 7 of them on foot, resulting in a total of ten (10) deaths.

Table No. 3, Fourth Quarter, 1911, reduces the number of killed and injured in vehicles to 34, increasing the number of persons killed and injured on foot from 7 to 17, and the number of deaths is increased in the Fourth Quarter of 1911 from 10 to 17.

Table No. 4 shows a remarkable comparison in favor of 1911 against the previous year. Nearly every class of employes has reduced its killed and injured, deaths have been reduced from 38 to 30, and cuts and bruises from 320 to 164.

Table No. 5 would indicate that other lines in Indiana have not been as fortunate as the Pennsylvania Lines in reducing the number of trespassers killed and injured.

Table No. 5, Fourth Quarter, 1910, shows a total of 61 trespassers killed and injured; this includes 38 killed.

Table No. 5, Fourth Quarter, 1911, shows a total of 80 trespassers killed and injured; this includes 51 deaths.

INTERURBAN LINES.

Table No. 7 for Electric Lines, Fourth Quarter, 1910, shows 36 passengers injured and no deaths.

Table No. 7, Fourth Quarter, 1911, shows 44 passengers injured and no deaths. The increase in passengers injured can be charged to the derailment of an Indiana Union Traction car in

the city of Anderson, which resulted in personal injuries to 33 passengers. The interurban people killed two persons on highways during the quarter of 1910, and the same number during the same quarter in 1911. Trespassers killed on the Interurban Lines for the Fourth Quarter of 1910, was 7, and for the same quarter in 1911 was 4.

The following are the steam roads on which employes were killed during the fourth quarter of 1911:

B. & O. R. R.....	1
B. & O. S. W. R. R.....	2
C. & E. I. R. R.....	1
C., I. & L. Ry.....	2
C., B. & C. R. R.....	1
C. & E. R. R.....	2
C., C., C. & St. L.....	2
I. C. R. R.....	1
I. H. Belt R. R.....	1
L. & N. R. R.....	1
L. S. & M. S. Ry.....	1
M. C. R. R.....	2
N. Y. C. & St. L. R. R.....	1
P., C., C. & St. L. Ry.....	6
P., F. W. & C. Ry.....	3
Wabash R. R.....	3

The manner in which the employes met their deaths is as follows:

- 1 conductor ran over by an engine.
- 1 conductor fell between the cars.
- 1 engineer, derailment.
- 1 fireman fell from engine.
- 1 fireman in collision.
- 1 brakeman fell between cars.
- 1 brakeman in collision.
- 1 brakeman ran over by engine.
- 5 brakemen fell from cars and run over by train.
- 1 brakeman uncoupling cars.
- 1 clerk fell between cars.
- 1 civil engineer struck by train.
- 2 crossing watchmen struck by trains.
- 1 laborer fell under cars.
- 11 laborers struck by trains.

Interurban Lines—Employees killed:

I. N. C. & T. Co., 1 sub-station operator electrocuted.

This Commission has said a great deal in favor of the establishment of committees of safety. Some of the railroad lines in the State have accepted our suggestions, and such as have done so are greatly satisfied with the results. It seems to be clear that the movement is a good one. We can imagine no good reason for the failure to adopt a plan which is seemingly without objection. We publish immediately below a comparative statement issued by the Chicago and Northwestern Railroad Co., or rather by its Central Safety Committee. We commend this statement to the careful study of such railroad managers and railroad general superintendents as have failed to take any action in this important matter, and we trust that it will convince them that they ought to take at the earliest possible time the necessary steps to establish safety committees on the lines of their railroads.

[Circular.]

CHICAGO AND NORTHWESTERN RAILWAY COMPANY.

H. T. Bentley.	C. H. Osborn.
S. M. Braden.	G. B. Schrand.
G. W. Dailey.	S. G. Strickland.
H. E. Dickinson.	W. J. Towne.
W. E. Dunham.	R. C. Richards,
J. H. Rhoads.	Chairman.

CENTRAL SAFETY COMMITTEE.

Office, 226 W. Jackson Boulevard, Chicago.

Statement of employees, passengers and others reported killed and injured during the twelve months ending December 31, 1910, and December 31, 1911:

	1911.		1910.		Decrease.		Per cent.
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	
Trainmen	17	1,875	35	3,190	18	1,315	41.2
Switchmen	10	496	15	614	5	118	19.2
Stationmen	2	573	4	649	2	76	11.7
Trackmen	30	1,181	21	1,777	*9	596	33.6
Bridgemen	3	226	1	332	*2	106	31.9
Car repairers and inspectors	1	278	7	289	6	11	3.8
Shop and roundhouse men	5	1,117	5	1,282	..	165	12.8
Other employees.....	8	279	9	271	1	*8	*2.9
Total employees..	76	6,025	97	8,404	21	2,379	28.3
Passengers	7	749	18	772	11	23	2.9
Other persons.....	196	577	207	555	11	*22	*3.9
Total	279	7,351	322	9,731	43	2,380	24.4

R. C. RICHARDS

* Increase

TRAVELERS KILLED ON HIGHWAY CROSSINGS, STATE
OF INDIANA, OCTOBER, NOVEMBER AND
DECEMBER, 1911.

STEAM ROADS.

B. & O. S. W.....	1
C., C., C. & St. L.....	3
C. & O.....	1
C. & E.....	1
P. & E.....	1
P., F. W. & C.....	2
P., C., C. & St. L.....	3
Vandalia	1
Wabash	4
<hr/>	
Total	17

TRESPASSERS KILLED, STATE OF INDIANA, MONTHS
OF OCTOBER, NOVEMBER AND DECEMBER, 1911.

STEAM ROADS.

B. & O. S. W.....	4
C. & E. I.....	2
C. & E.....	1
C., I. & L.....	9
C., I. & S.....	1
C., T. H. & S. E.....	1
C., C., C. & St. L.....	8
E., J. & E.....	2
I. H. B.....	2
I. C.....	2
L. S. & M. S.....	5
L. E. & W.....	2
M. C.....	1
N. Y. C. & St. L.....	1
P., F. W. & C.....	2
P., C., C. & St. L.....	1
Southern	1
T., St. L. & W.....	1
Vandalia	3
Wabash	2
<hr/>	
Total	51

TABLE No. 1.

**Steam and Electric Railroad Companies Not Reporting Any
Accidents for Months of October, November and
December, 1911.**

Lebanon & Thorntown Traction Co.
 Marion, Bluffton & Eastern Traction Co.
 Evansville & Southern Indiana Traction Co.
 Ohio Electric.
 St. Joseph Valley Ry. Co.
 Chicago & Wabash Valley Ry. Co.
 New Jersey, Indiana & Illinois Ry. Co.
 Syracuse & Milford Ry. Co.
 Angola Ry.
 Louisville, New Albany & Corydon Ry.
 Bluffton, Geneva & Celina Traction Co.
 Kokomo, Marion & Western Traction Co.
 Central Indiana Ry. Co.
 Indianapolis, Crawfordsville & Western Traction Co.
 Louisville & Southern Indiana Traction Co.
 Cincinnati, Lawrenceburg & Aurora Traction Co.
 Louisville & Northern Ry. & Lighting Co.

TABLE No. 2.

STEAM RAILROADS.

**Casualties to PASSENGERS, October, November and
December, 1911.**

WHERE, ETC.—	1910.	1911.
On passenger trains.....	99	61
On freight trains.....	2	1
On station grounds.....	1	1
Postal and expressmen.....	0	0
CAUSES—		
Collisions	66	27
Derailments	1	10
Getting on and off moving trains.....	18	10
Getting on and off trains after stops are made.....	2	4
Defective and unlighted stations and platforms.....	0	0
Miscellaneous	16	12

RESULTS—	1910.	1911.
Deaths	3	4
Loss of limbs	1	1
Loss of fingers or toes.....	0	0
Spinal injury	0	0
Fractures or dislocations.....	5	0
Sprains	7	8
Cuts and bruises.....	61	50
Miscellaneous	26	0

TABLE No. 3.

STEAM RAILROADS.

**Casualties to TRAVELERS ON HIGHWAY, October,
November and December, 1911.**

WHERE—	1910.	1911.
In vehicles	40	34
On foot	7	17
CAUSES—		
Struck on crossing	47	46
Teams frightened	0	3
Defective crossings	0	0
Miscellaneous	0	2
RESULTS—		
Deaths	10	17
Loss of limbs.....	0	2
Loss of fingers or toes.....	0	1
Spinal injuries	0	0
Fractures or dislocations.....	8	7
Sprains	3	1
Cuts and bruises.....	22	22
Miscellaneous	4	1

TABLE No. 4.

STEAM RAILROADS.

**EMPLOYEES Killed or Injured During October, November
and December, 1911.**

EMPLOYMENT—	1910.	1911.
Conductors	47	31
Enginemen	53	27
Firemen	80	59
Brakemen, roads and yards.....	253	164
Mechanics	19	6
Warehousemen	0	0
Laborers	116	54
Miscellaneous	5	1
CAUSES—		
Coupling and uncoupling.....	33	13
Collisions	94	30
Derailments	25	19
Getting on and off trains.....	72	51
Caught in frogs and switches.....	0	1
Use of tools and machinery.....	27	25
Overhead obstructions	3	3
Falling from cars.....	44	28
Side obstructions	19	15
Miscellaneous	254	130
Defective tools and appliances.....	2	5
Struck by passing train.....	0	22
RESULTS—		
Deaths	38	30
Loss of limbs.....	12	11
Loss of fingers or toes.....	19	4
Spiral injuries	0	0
Fractures or dislocations.....	38	36
Sprains	108	83
Cuts and bruises.....	320	164
Miscellaneous	19	2
Scalds and burns.....	19	12

TABLE No. 5.

STEAM RAILROADS.

TRESPASSERS Killed or Injured During October, November and December, 1911.

WHERE—	1910.	1911.
On tracks	48	51
On trains	12	31
Miscellaneous	1	4
RESULTS—		
Deaths	38	51
Loss of limbs.....	6	6
Loss of fingers or toes.....	1	1
Spinal injuries	0	0
Fractures or dislocations.....	3	9
Sprains	1	1
Cuts and bruises	12	18
Miscellaneous	0	0

LICENSEES Killed or Injured During October, November and December, 1911.

WHERE—	1910.	1911.
On passenger trains.....	0	13
On freight trains.....	2	3
Station grounds, etc.....	7	11
CAUSES—		
Collision	0	12
Derailment	0	0
Miscellaneous	9	15
RESULTS—		
Death	1	2
Fracture or dislocation.....	0	2
Sprains	6	4
Miscellaneous	0	0
Loss of finger or toe.....	1	0
Loss of limb	1	0
Cuts and bruises.....	0	19

TABLE No. 6.

STEAM RAILROADS.

**RESULTS AND CAUSES of Accidents During October,
November and December, 1911.**

RESULTS, TOTAL—		Deaths.	Loss of Limbs.	Loss of Fingers or Toes.	Spinal Injuries.
Passengers		4	1	0	0
Travelers on highways.....		17	2	1	0
Employes		30	11	4	0
Trespassers		51	6	1	0
Licensees		2	0	0	0
Total		94	20	6	0

RESULTS, TOTAL—		Fractures or Dislocations.	Sprains.	Cuts and Bruises.	Miscellaneous.
Passengers		0	8	50	0
Travelers on highways.....		7	1	22	1
Employes		36	83	164	2
Trespassers		9	1	18	0
Licensees		2	4	19	0
Total		54	97	273	3

CAUSES, TOTAL—		Coupling and Uncoupling.	Caught in Frogs and Switches.	Use of Tools and Machinery.	Overhead Obstructions.	Fell from Cars.
Passenger trains		0	0	0	0	0
Freight trains		13	1	25	3	28
Total		13	1	25	3	28

CAUSES, TOTAL—		Side Obstructions.	Collisions.	Derailments.	Getting On and Off Trains.	Miscellaneous.	Defective Tools and Appliances.
Passenger trains.....		0	27	10	10	12	0
Freight trains.....		15	30	19	51	130	5
Total		15	57	29	61	142	5

Total damage to engines, cars, roadway, etc.....						\$23,200.41
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TABLE No. 7.

ELECTRIC INTERURBAN RAILROADS.

**CASUALTIES on the INTERURBAN RAILROADS During
October, November and December, 1911.**

PASSENGERS.

WHERE—	1910.	1911.
On passenger trains.....	35	44
On station grounds.....	1	0
CAUSES—		
Collisions	11	1
Derailements	0	33
Getting on and off moving trains.....	5	7
Getting on and off trains after stops are made.....	4	0
Miscellaneous	16	3
RESULTS—		
Deaths	0	0
Fractures and dislocations.....	1	1
Sprains	1	5
Cuts and bruises.....	30	36
Miscellaneous	1	1
Loss of limb	0	1

HIGHWAYS.

WHERE—	1910.	1911.
In vehicles	7	10
On foot	2	2
CAUSES—		
Struck on crossing.....	7	12
Teams frightened	2	0
Miscellaneous	0	0
RESULTS—		
Deaths	2	2
Sprains	0	1
Cuts and bruises.....	3	7
Miscellaneous	4	0
Fracture or dislocation.....	0	2

EMPLOYEES.

EMPLOYMENT—	1910.	1911.
Conductors	0	1
Motormen	6	3
Laborers	9	2

CAUSES—	1910.	1911.
Coupling and uncoupling.....	0	1
Collisions	3	2
Miscellaneous	12	2
Fall from cars.....	0	1

RESULTS—		
Deaths	2	1
Fractures or dislocations.....	4	0
Sprains	0	0
Cuts and bruises.....	7	5
Miscellaneous	2	0

TRESPASSERS.

WHERE—	1910.	1911.
On tracks	7	2
Miscellaneous	3	2
On trains	0	2

RESULTS—		
Deaths	7	4
Fractures or dislocations.....	0	0
Sprains	2	0
Cuts and bruises.....	1	2

LICENSEES.

WHERE—	1910.	1911.
On station ground.....	0	3

CAUSES—		
Miscellaneous	0	3

RESULTS—		
Deaths	0	2
Cuts and bruises	0	1

TABLE No. 8.

The Following Table Shows the Total Casualties on the
Interurban Roads, October, November and
December, 1911.

	1910.	1911.
Deaths	11	9
Injured	59	62

TABLE No. 9.

TOTAL CASUALTIES on ALL RAILROADS.**DEATHS.**

	<i>1910.</i>	<i>1911</i>
Steam railroads.....	90	104
Electric railroads	11	9
	<hr/>	<hr/>
Total	101	113

INJURED.

Steam railroads.....	702	469
Electric railroads	59	62
	<hr/>	<hr/>
Total	761	531

APPENDIX VI.

Circular Letters.

CIRCULAR LETTERS.

STATE OF INDIANA.

RAILROAD COMMISSION OF INDIANA.

CIRCULAR No. 72.

REGISTER BOOK FOR TRAIN AND ENGINE MEN.

To All Steam Railroads:

Chapter 131 of the Acts of the General Assembly of 1907 makes it the duty of the Railroad Commission to fully investigate all cases of the violation of the Human Endurance Law of this State, known as the 16-hour law.

In order to facilitate this investigation and to more effectively enforce the provisions of this act, to the end that practically all violations thereof may cease, the Commission hereby directs all steam railroads to keep at terminal registry stations, including yard offices and roundhouses, a book for the registry of train and engine crews in form and substance similar to the following:

.....RAILROAD COMPANY.

.....DIVISION.

Register of Train Crews Arriving at.....Date.....19..

No. of Train.	No. of Engine.	No. of Caboose.	CONDUCTOR OR ENGINEER.	BRAKEMAN OR FIREMAN.	Time of Arrival.	Off Duty Before Starting.		On Duty.		Remarks.
						Hours.	Min.	Hours.	Min.	

By order of the Railroad Commission of Indiana,

J. L. REILEY, Secretary.

February 21, 1911.

STATE OF INDIANA.

RAILROAD COMMISSION OF INDIANA.

CIRCULAR No. 73.

RAILROAD CROSSING AT GRADE, RED LIGHT.

To All Steam and Interurban Railroads:

The Railroad Commission calls your attention to the stop signal for railroad crossings at grade, where there is no interlocking plant, in use by the Pennsylvania and Baltimore and Ohio and some other companies.

This stop signal is a red light placed on the right-hand side for an approaching train, showing about five feet above the ground. This light to be used in connection with the stop sign. It can be maintained with very little expense, and will be especially useful at grade crossings of railroads out in the country where there is nothing at night to call the engineer's attention to the fact that he is approaching a crossing.

The Commission hereby requests and directs that railroad companies operating trains over railroad grade crossings in this State shall adopt and use this light, and that you will report your action in this behalf to the Commission.

By order of the Commission,

J. L. REILEY, Secretary.

INDIANAPOLIS, IND., March 8, 1911.

STATE OF INDIANA.

RAILROAD COMMISSION OF INDIANA.

CIRCULAR No. 74.

REVISION OF RULE.

To All Interurban Railroads:

The interurban railroad companies whose lines extend from Indianapolis, Ind., to Louisville, Ky., have petitioned the Railroad Commission of Indiana to approve the following rule, to take the place of the subsisting rule on this subject.

The Commission after full consideration has granted the petition of said companies, and now recommends to all interurban railroads in this State the adoption of the same rule, as follows:

"In case it becomes necessary either from an emergency or when provided for in the assignment of crews, or by permission from proper authority, for crews or any member of the crew to change off between the initial and terminal points, the persons being relieved must deliver to the ones relieving them all unfulfilled orders affecting the movement of their train. One member of the crew re-

ceiving the unfulfilled order must call the dispatcher at the nearest telephone and repeat same to him, initialing and timing the order in the same manner as when taking an original order and have the same read to him and signed by the other member of the crew. The dispatcher will O.K. order and note same on his order book, giving the time and name of member of the crew repeating.

"In the event of the telephone line being down and the crew being unable to reach the dispatcher in a reasonable time, they may proceed on the order delivered to them by the crew they relieved who must know that the relieving crew thoroughly understands same. In the event of them proceeding without having reached the dispatcher they must endeavor so to do at each succeeding siding."

Please advise that you will accept and act in accordance with this rule.

By order of the Commission.

J. L. REILEY, Secretary.

INDIANAPOLIS, IND., May 3, 1911.

STATE OF INDIANA.

RAILROAD COMMISSION OF INDIANA.

CIRCULAR No. 75.

BLOCK SIGNALS

To all Steam Railroads:

Block signals, the greatest safety device for railroads, have had the especial attention of this Commission. In 1907 we found that a smaller per centum of block signals were installed in this State than generally in other States, and we suggested the Block Signal Act of 1907. We have continued to insist upon progress in this regard, until on March 4, 1911, Chapter 118 (page 466, Acts of 1911) was approved, requiring the installation of block signals on the railroads of this State by January 1, 1912, to be approved by this Commission. In this act full power is conferred upon the Commission to extend the time of installation, or to relieve any line, or part of line, from putting on block signals.

In order that the Commission may have complete information as to the conditions on all roads, to the end that the legislative will may be carefully and fully observed, this Commission has divided the steam railroads into three classes, as follows:

- (A) Roads having signals in service, asking for approval of the system now in operation.
- (B) Roads installing signals, either automatic or other, asking the Commission to approve the proposed system.
- (C) Roads asking to be relieved from installing any system.

And the Commission hereby directs that certain information shall be furnished to it as follows, by classes A and B:

1. Territory covered, between what points.
2. Miles of road, number of blocks, maximum length of block, minimum length of block, average length of block.
3. Single or double track.
4. Number of trains per day at point of heaviest traffic and at busy season of year, dividing the trains into the following classes:
 - (a) Regular passenger.
 - (b) Extra passenger.
 - (c) Regular freight.
 - (d) Extra or special freight.
5. Is any part of territory used by trains of a foreign company, and if so, between what points and by what company?
6. Statement as to system proposed to be used, and if other than automatic, is it proposed to use permissive blocking, at what points and under what conditions.
7. If system other than automatic is proposed to be used, will all block stations be operated for twenty-four hours per day, and if not, state what stations will be closed and between what hours.
8.
 - (a) Furnish blue print showing main line, passing tracks, junction points, grade crossings, stations, signals, etc.
 - (b) Profile showing grades, curvature and signal locations.
 - (c) Detail of any circuits used in connection with signal system.
 - (d) General and special rules to trainmen and other employees for the operation and maintenance of signals.

Class C shall furnish information under questions above, 1 to 5 inclusive, and shall also make a general statement as to why block signals are not necessary to be installed on their lines, or on any part of their lines.

The Commission states for the information of the Companies that the automatic block signals now installed in this State on the New York, Chicago & St. Louis Railway, a single track railroad between South Whitley and Dunfee, have been carefully examined by the Commission and its expert, and will be approved by the Commission.

Responses to this circular should be made by the first day of July, 1911.

By order of the Commission.

J. L. REILEY, Secretary.

INDIANAPOLIS, IND., May 10, 1911.

STATE OF INDIANA.

RAILROAD COMMISSION OF INDIANA.

CIRCULAR No. 76.

(Supersedes Circulars Nos. 8, 9 and 41.)

CONCERNING REPORTS OF ACCIDENTS.

To All Steam and Electric Railroads:

To comply with the law and general order of the Commission, you will be governed by this Circular in reporting accidents. Your particular attention is called to Part II, and also to the fact that a great many roads are not giving enough information in the final report.

I. WHO REPORTS.

1. Reports shall be made and signed by a chief operating official of the reporting railroad, and not by a subordinate employe. The address of the official signing the reports, shall be given in each instance.

2. Each carrier shall report accidents, including property loss, occurring to trains operated over its line by other companies, the same as if the accident happened to its own train. In such a case the company owning the train shall not report such accident.

3. In reporting damage caused by collision with another carrier, each carrier should report only the damage it sustains, and its passengers and employes killed or injured. If joint employes, each should report and so state. Other persons killed or injured in such collision should be reported by each company.

II. PRELIMINARY AND FINAL REPORTS.

The statute (Acts of 1911, page 127, Clause A, Section 1) enacts that a report must be made to this Commission as soon as possible by telegraph or telephone after an accident has happened resulting in loss of life or serious injury to passenger or employe, this wire notice doing away with the preliminary five day report for that accident, the final report to follow as usual within twenty days.

The Commission now instructs that in making the wire or 'phone report, that you show name of road, date, hour, place and kind of accident, cause, if known, number of persons killed, number of persons injured, disposition of injured; and, if possible, in case of persons killed, place, date and hour that coroner's inquest will be held; and, that the final report shall give information as shown in this circular.

III. WHAT REPORT SHALL CONTAIN.

1. Only one accident is to be reported on one blank. Such report shall contain the names of all persons killed or injured in that accident only.

2. The report should contain all the material facts; and, wherever possible, a full explanation of the accident; and not a bare

recital that a particular person was injured while doing a specified act, or any other inadequate account.

3. Accidents to be reported and information shown:

- (1) All accidents occurring on the line, at terminals and in the yards, and shall embrace all persons named below:
 - (a) All employes killed or injured;
 - (b) All passengers killed or injured;
 - (c) All expressmen, baggagemen, postal employes and Pullman employes killed or injured;
 - (d) All other persons, not trespassers, killed or injured;
 - (e) All other persons, trespassers, killed or injured.
- (2) All derailments, collisions, or other serious accidents in train operation, whether there be loss of life or personal injury, or not.
- (3) All damage to the property of the company having the accident is to be reported whether there is loss of life, personal injury, or not. Damage occurring on account of personal injuries, death losses, damage to property carried, or to property of other persons or carriers is not to be reported.

4. In case of death from personal injury within four days after the accident, it should be reported.

5. All accidents other than those occurring in shops, round-houses, power-houses, on boats or at wharves, are to be reported whether the persons killed or injured be employes, passengers or other persons when the accident occurred in connection with train movement at depots or depot grounds, in the yards, at terminals or on the line.

6. If the accident was occasioned on account of defective safety appliances, such as air brakes, automatic couplers, standard draw-bars or handholds, the report must give the number and initial of the defective car, point of origin and destination of the freight, if loaded.

7. Where accidents are occasioned by defective or broken rail, give weight and make of rail and date laid.

8. All steam lines are required to file a copy of their train rules with the Commission. When the accident has been caused on account of failure to observe these rules, the report should refer by number to the rule which was violated and state in what particular violated, and by what officer or employe.

9. If the accident was caused through the fault of an employe the report must show his length of service, qualifications and the number of hours on duty at the time of the accident.

10. If discipline has been imposed upon parties found to be responsible for the accident, the fact should be stated, together with the punishment inflicted.

11. Bear in mind that all collisions, also all derailments of engines or trains, are to be reported whether there be personal injury

or loss of life or not; provided, the damages to the company's property amounts to \$150 or more; except that all accidents are to be reported which are due to violation of rules, neglect of duty, absence of signals, signals wrongfully displayed or interpreted, or to any cause inconsistent with good railroad practice.

IV. WHAT NOT TO BE REPORTED.

1. Accidents occurring in shops, roundhouses, power-houses, on boats or at wharves, are not to be reported.

2. Such accidents only as occur *within the State of Indiana* are to be reported to this Commission.

3. Accidents to employes resulting in slight injuries which do not prevent the employe injured from performing his accustomed services for more than two days in the aggregate during five days next following the accident, and other trivial accidents, should not be reported.

4. No damage to the company's property need to be reported when the same is less than \$150, occasioned by any one accident.

5. Accidents having no direct connection with railroad operation are not to be reported, e. g., runaways caused by horses frightening at train, where no collision with train resulted.

V. FORMS FOR REPORTS.

1. Blanks are printed in copying ink, and and if you will use copying ink in making the report you can take an impression of same for your files. We suggest you do this, so that reference can be made thereto in any correspondence had with this department concerning the report.

2. The space for numbering found on the right-hand side of the blank is intended for use in this department and should not be used by you. Your official number may be placed on the left-hand side as shown on the blank.

VI. MAILING REPORTS.

1. Mail all reports addressed as follows:

"Railroad Commission of Indiana.
Accident Report. Indianapolis, Ind."

RAILROAD COMMISSION OF INDIANA,

J. L. REILEY, Secretary.

INDIANAPOLIS, IND., June 15, 1911.

STATE OF INDIANA.

RAILROAD COMMISSION OF INDIANA.

CIRCULAR No. 77.

(Superseding No. 21 and No. 60.)

HIGHWAY CROSSING SIGNS.

For three years this Commission has been urging the installation of Highway Crossing Signs with the word "Danger" inscribed thereon. Most of the companies have complied. For such that have failed or refused, the General Assembly has prescribed Chapter 224, Acts of 1911, set out hereafter.

Notice is hereby given that in all cases where these signs are not installed, and in all cases where the same are not maintained with letters plainly legible, prosecutions will be commenced for the penalties provided by the Act. The Commission has directed its inspectors to report all failures, and this Act will be strictly enforced.

By order of the Commission.

J. L. REILEY, Secretary.

June 14, 1911.

CHAPTER 224.

AN ACT to require steam and interurban railroad companies to install and maintain adequate highway crossing signs at the grade crossing of railroads and highways in this State. (Approved March 6, 1911.)

RAILROADS—STEAM OR INTERURBAN—CROSSING SIGNS.

Section 1. *Be it enacted by the General Assembly of the State of Indiana*, That from and after January 1, 1912, it shall be unlawful for any person, firm or corporation, or the lessee or receiver of any person, firm or corporation, who shall own or operate any line of steam or interurban railroad in this State to run trains on the same without installing and maintaining at each grade crossing of its railroad with any public highway, highway crossing signs; to be placed at right angles with the highway, where possible, and the construction of the same and warning notice to be as follows: A substantial upright post, 13 feet or more in length, 3½ feet of which shall be in the ground; a board of wood or metal to be placed not closer to the ground than 7 feet on this post, at right angles with the post, on which shall appear the word "Danger" in red or black letters; two other boards to be placed diagonally across each other just above the board on which the word "Danger" is printed, and on one of the two boards the word "Railroad" shall appear, and on the other the word "Crossing." Where two railroads are crossed by the highway, parallel with each other, and not further than 100 feet distance from each other, a board shall be placed at the top of the diagonal boards on which shall appear the word

"Two"; the boards on which the word "Danger" is written shall be at least 4 feet in length; the boards on which the words "Railroad Crossing" are written shall not be less than 5 feet in length, and where there are two railroads to be crossed the board with the word "Two"-on it shall not be less than 2 feet in length; the size of all letters on the signs shall not be less than 6 inches high: *Provided*, That the crossing signs of carriers in this State heretofore approved by the Railroad Commission may remain and be taken as a compliance with the terms of this Act: *And, provided further*, That any other sign than the type described above may be constructed and used with the consent of the Railroad Commission of Indiana.

PENALTY.

Section 2. Be it further enacted, That any person, firm or corporation, or the lessee or receiver of any person, firm or corporation, violating the provisions of Section 1 of this act are guilty of a misdemeanor and on conviction shall be fined not less than \$25 nor more than \$200.

REPEAL.

Section 3. Be it further enacted that all laws, or parts of laws that are in conflict with this act are hereby repealed.

STATE OF INDIANA.

RAILROAD COMMISSION OF INDIANA.

CIRCULAR NO. 78.

To All Steam and Interurban Railroads:

Do you use on bridges on your line in the State of Indiana inside guard rails to control derailed wheels? How far from the main track rail do you place same? How far from the end of bridge do you commence to curve the rails to bring them to a point in center of track? If these guards are not used on all bridges state kind used on and reason for putting on some bridges and not on others. If used on bridges over a certain number of feet in length and not on shorter bridges give length in feet of shortest bridge on which used. If used on bridges built on curves and not on bridges on tangent, state why. If not in use at all give reason. If your experience has shown either the necessity of these guards or that they should not be used, kindly cite the instance for the Commission's benefit in dealing with this subject. This circular letter is addressed to the managing operating officials of steam and interurban lines of the State and it is the request of the Commission that they furnish this information promptly.

J. L. REILEY,
Secretary.

INDIANAPOLIS, IND., July 27, 1911.

STATE OF INDIANA.

RAILROAD COMMISSION OF INDIANA.

CIRCULAR No. 79.

INTERURBAN BLOCK SIGNALS.

To All Interurban Railroads:

The Commission wishes to call your attention to the Block Signal Act, Chapter 118 (page 466, Acts of 1911), approved March 4, 1911, requiring installation of block signals on all the railroads of the State by January 1, 1912, giving the Commission the power to relieve any line or part of line, and also to extend the time of installation.

On account of the fact that the art of block signaling for electric railroads not being as fully developed as for steam railroads the Commission found it necessary to appoint a Committee to investigate the subject. The work of the Committee has progressed sufficiently to indicate that block signals are now to be had to meet the conditions existing on the electric railroads in this State.

In order that the Commission may have complete information as to the conditions on all roads, to the end that the legislative will may be carefully and fully observed, this Commission has divided the electric railroads into three classes, as follows:

(A) Roads having signals in service, asking for approval of the system now in operation.

(B) Roads installing signals, either automatic or other, asking the Commission to approve the proposed system.

(C) Roads asking to be relieved from installing any system.

And the Commission hereby directs that certain information shall be furnished to it as follows, by classes A and B:

1. Territory covered, between what points.
2. Miles of road, number of blocks, maximum length of block, minimum length of block, average length of block.
3. Single or double track.
4. Number of trains per day under normal traffic conditions, dividing trains into the following classes:
 - (a) Regular passenger.
 - (b) Extra passenger. (bb) Extra passenger at heaviest season of the year.
 - (c) Regular express or freight.
 - (d) Extra or special express or freight. (dd) Extra or special express or freight at heaviest season of the year.
5. Is any part of territory used by trains of a foreign company, and if so, between what points and by what company?
6. Statement as to system proposed to be used, and if other than automatic, is it proposed to use permissive blocking, at what points and under what conditions?

7. If system other than automatic is proposed to be used, will all block stations be operated for twenty-four hours per day, and if not, state what stations will be closed and between what hours?
8. (a) Furnish blue print showing main line, passing tracks, junction points, grade crossings, stations, signals, etc.
 (b) Profile showing grades, curvature and signal locations.
 (c) Detail of any circuits used in connection with signal system.
 (d) General and special rules to trainmen and other employes for the operation and maintenance of signals.

Class C shall furnish information under questions above, 1 to 5 inclusive, and shall also make a general statement as to why block signals are not necessary to be installed on their lines, or on any part of their line.

Responses to this circular should be made by the 31st day of October, 1911.

By order of the Commission.

J. L. REILEY,
Secretary.

INDIANAPOLIS, IND., September 12, 1911.

STATE OF INDIANA.

RAILROAD COMMISSION OF INDIANA.

CIRCULAR No. 80.

BLOCK SIGNALS.

To All Interurban Railroad Companies:

A meeting of the general managers and signal officers, including any other general officers, of all interurban railroads operating in this State is hereby called to take place at room 83, State House, Monday, December 4, 1911, at 2 o'clock p. m., for the purpose of considering the matter of block signaling on interurban railroads in this State.

No answer to Circular No. 79 need be made until after the meeting above called.

Please advise upon receipt of this circular who will represent your company at this meeting.

By order of the Commission.

J. L. REILEY,
Secretary.

INDIANAPOLIS, IND., November 15, 1911,

STATE OF INDIANA.
RAILROAD COMMISSION OF INDIANA.

SUPPLEMENT TO CIRCULAR No. 80.

BLOCK SIGNALS.

To All Interurban Railroad Companies:

On account of the continued illness of M. H. Hovey, Block Signal Inspector, the meeting of the interurban companies heretofore called for the 18th is again postponed.

As soon as Mr. Hovey is able to be present, a time for the meeting will be set and you will be notified.

By order of the Commission.

J. L. REILEY, Secretary.

INDIANAPOLIS, IND., December 14, 1911.

STATE OF INDIANA.
RAILROAD COMMISSION OF INDIANA.

SUPPLEMENT TO CIRCULAR No. 80.

BLOCK SIGNALS.

To All Interurban Railroad Companies:

The meeting of the interurban companies which has been postponed on account of the illness of M. H. Hovey, Block Signal Inspector, will take place on Wednesday, February 14, 2 p. m. You will please attend.

By order of the Commission.

J. L. REILEY, Secretary.

INDIANAPOLIS, IND., January 29, 1912.

STATE OF INDIANA.
RAILROAD COMMISSION OF INDIANA.

CIRCULAR No. 81.

To All Carriers:

The Commission is advised that many losses and delays in business transactions have occurred by reason of the circulation of fictitious and fraudulent order bills of lading. Frequently drafts, with fraudulent order bills of lading attached, have been honored, and at times valid securities of this class have been declined for the want of any indices of genuineness.

In order to in some measure protect the public in accepting order bills of lading, it is recommended that agents and clerks, authorized to issue order bills of lading, be instructed to refuse permission to any other person at their stations to sign an order bill of lading for the carrier; that such bills of lading be stamped when issued, and that in preparing the same for issuance, the written portion thereof shall be either in ink, indelible pencil or type.

All of which is ordered and directed by the Commission.

RAILROAD COMMISSION OF INDIANA,
J. L. REILEY, Secretary.

DECEMBER 31, 1911.

APPENDIX VII.

Tables.

STEAM ROADS—TABLE No. 1.

ROAD OPERATED—ENTIRE LINE (MILES).

For Companies (Other Than Switching and Terminal) Making Operating Reports.

NAME OF EVERY RAILROAD THE OPERATIONS OF WHICH ARE INCLUDED IN THE INCOME ACCOUNT.

The following notes refer to column headings: 1. Line owned by respondent. A. Main line. B. Branches and spurs. 2. Line operated by respondent but owned by another corporation, control being secured through stock ownership. 3. Line operated under lease for specified sum. 4. Line operated under contract or agreement, or where the rent is contingent upon earnings or other considerations. 5. Line operated under trackage rights.

OPERATING ROADS.	1.						5.	Total Entire Line.
	1.	A.	B.	2.	3.	4.		
Baltimore & Ohio Railroad Co.	1,243.80	847.91	305.89				24.84	1,268.64
Bellford Stone Railroad Co.	2.96	2.96						2.96
Central Indiana Railway Co.	117.58	117.58					9.46	127.04
Chesapeake & Ohio Railway Co. of Indiana.	260.69	260.69					23.90	284.59
Chicago & Eastern Illinois Railroad Co.	819.19	674.78	144.41				146.46	965.65
Chicago & Erie Railroad Co.	249.57						19.99	269.56
Chicago & Wabash Valley Railway Co.	35.32							35.32
Chicago, Indiana & Southern Railroad Co.	326.97	292.85	34.12	8.49			27.83	341.10
Chicago, Indianapolis & Louisville Railroad Co.	508.79	450.80	57.99		68.92		38.92	616.63
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Railway Co.)	350.77	313.28	37.49		30			351.07
Cincinnati, Bluffton & Chicago Railroad Co.	52.53	49.41	3.12					52.53
Cincinnati, Hamilton & Dayton Railroad Co.	313.92	313.92		511.07			44.64	1,014.60
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	635.48	632.80	2.68	1,168.47			134.62	1,982.21
Elgin, Joliet & Eastern Railway Co.	227.65	129.94	97.71		343.28		270.86	841.79
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	294.16	242.71	51.45			3.77	11.80	309.73
Ferdinand Railway Co.	6.48						90	7.38
Grand Rapids & Indiana Railway Co.	431.49	366.63	64.96			148.54	7.19	587.32
Grand Trunk Western Railway Co.	330.91			1.73			4.84	347.05
Illinois Central Railroad Co.	2,098.92	1,351.20	747.72	92.58	1,320.41	864.33	199.85	4,576.09
Indianapolis Southern Railroad Co.	176.93	176.93				2.13	20	179.26
Lake Erie & Western Railroad Co.	710.06	676.02	34.04		161.74		14.28	886.08
Lake Shore & Michigan Southern Railway Co.	871.03	536.61	334.42	280.32	344.10	70.63	87.83	1,662.91
Louisville & Nashville Railroad Co.	3,507.75	2,616.59	891.16	544.45	118.97	221.88	228.45	4,621.50
Louisville, New Albany & Corydon Railroad Co.	11.00	7.70	3.30					11.00
Michigan Central Railroad Co.	270.07	270.07		250.67	1,190.54		93.49	1,804.77

New Jersey, Indiana & Illinois Railroad Co.	11.84	11.49	35	17.80	10.50	11.84
New York, Chicago & St. Louis Railroad Co.	533.21	494.72	38.49	13.69	561.51
Peoria & Eastern Railway Co.	337.92	337.92	75.10	351.61
Pennsylvania Co.	255.27	1,415.88
Pere Marquette Railroad Co.	1,768.11	1,411.61	356.50	910.02	430.76	2,331.47
Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.	1,114.55	865.31	249.24	23.66	82.46	1,467.63
St. Joseph Valley Railway Co.	27.09	27.09	196.05	74.57	1,467.63
Southern Railway Co.	3,846.37	2,590.21	1,256.16	16.11	7,038.64
Southern Indiana Railway Co. (Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Railway Co.)	232.34	194.85	37.49	1,082.80	779.46	7,038.64
Syracuse & Milford Railway Co.	450.72	450.72	30	4.19	236.83
Toledo, St. Louis & Western Railroad Co.	638.91	608.70	30.21	450.72
Vandalia Railroad Co.	1,945.72	1,743.67	202.05	19.49	141.36	827.27
Wabash Railroad Co.	6.17	2,314.60
Total.....	24,760.81	19,067.67	5,070.95	6,018.84	2,749.51	40,397.89

STEAM ROADS—TABLE No. 1—Continued.

ROAD OPERATED—STATE OF INDIANA (MILES).

OPERATING ROADS.	1.	A.	B.	2.	3.	4.	5.	Total, State of Indiana.
Baltimore & Ohio Railroad Co.	337 05	315 88	71 17				39	387 44
Bellford Stone Railway Co.	2 96	2 96						* 2 96
Central Indiana Railway Co.	117 58	117 58					9 46	127 04
Chesapeake & Ohio Railway Co. of Indiana.	227 62	227 62					2 61	230 23
Chicago & Eastern Illinois Railroad Co.	248 70	174 98	74 31				6 10	254 80
Chicago & Erie Railroad Co.	160 17	160 17						160 17
Chicago & Wabash Valley Railroad Co.	35 23	35 23						35 23
Chicago, Indiana & Southern Railroad Co.	184 84	182 91	1 93				5 81	190 65
Chicago, Indianapolis & Louisville Railway Co.	508 79	459 80	57 99		68 92		12 14	589 85
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Railway Co.)	236 53	199 04	37 49		30			236 83
Cincinnati, Bluffton & Chicago Railroad Co.	52 53	49 41	3 12					52 53
Cincinnati, Hamilton & Dayton Railway Co.	308 96	306 28	2 68	172 58			1 93	174 51
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	45 15	25 91	19 24	381 55	185 89		75 43	765 64
Ellettsville & Eastern Railway Co.							59 15	290 19
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	294 16	242 71	51 45			3 77	11 80	309 73
Ferdinand Railroad Co.	6 48	6 48					90	7 38
Grand Rapids & Indiana Railway Co.	53 15	53 15				85 83	7 19	146 17
Grand Trunk Western Railway Co.	80 67							80 67
Illinois Central Railroad Co.	45 88	31 33	14 55					56 65
Indianapolis Southern Railroad Co.	120 43	120 43				2 13	10 77	122 76
Jackie Line & Western Railroad Co.	445 52	421 48	24 04				11 57	457 09
Laclede Stone & Machine Southern Railway Co.	167 30	101 31	65 99	37 66	53 30		8 98	267 24
Louisville & Nashville Railroad Co.	9 57	9 57		28 53				38 10
Louisville, New Albany & Corydon Railroad Co.	11 00	7 70	3 30					11 00
Madison Central Railroad Co.	43 00	43 00		36 23			2 60	81 83
New Jersey Indiana & Illinois Railroad Co.	11 84	11 40	35					11 84
New York, Chicago & St. Louis Railroad Co.	156 88	151 02	5 86				4 73	156 88
Pennsylvania Co.	153 45	153 45						153 45
Pere Marquette Railroad Co.	18 62	18 62		34 47	153 00	8 01	31 73	161 01
Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.	613 11	469 65	173 46			43 02	54 97	84 82
St. Joseph Valley Railway Co.	27 09	27 09		236 17	16 11		43 20	741 10
Southern Railway Co.							3 33	239 50
Southern Indiana Railway Co. (Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Railway Co.)	232 34	194 85	37 49		30	4 19		236 83
Syracuse & Mifflord Railway Co.								
Toledo, St. Louis & Western Railroad Co.	171 20	171 20					3 12	171 20
Vandalia Railroad Co.	480 21	450 00	30 21		19 49		5 75	502 82
Wabash Railroad Co.	351 71	336 91	14 80					357 46
Total	6,039 81	5,269 71	689 43	890 06	533 54	146 95	330 66	7,941 62

STEAM ROADS—TABLE No. 1—Continued.

SWITCHING OR TERMINAL COMPANIES OPERATED, WHOSE MILEAGE IS NOT INCLUDED IN THE ABOVE TABLES, BUT TO BE ADDED THERETO (ENTIRE LINE).

The following notes refer to column headings: 1. Line owned by respondent. A. Main line. B. Branches and spurs. 2. Line operated by respondent but owned by another corporation, control being secured through stock ownership. 3. Line operated under lease for specified sum. 4. Line operated under contract or agreement, or where the rent is contingent upon earnings or other considerations. 5. Line operated under trackage rights.

SWITCHING ROADS.								
	1.	A.	B.	2.	3.	4.	5.	Total Entire Line.
Baltimore & Ohio—Chicago Terminal Railroad Co.	193.98	83.92	110.06					201.70
Bedford & Walther Railroad Co.	2.94	2.94					7.72	2.94
Chicago & South Bend Railroad	1.00	.91	.09					1.00
Elwood, Anderson & Lapel Railroad Co.	4.51	1.11	3.40					4.51
Indianapolis Union Railroad Co.	5.13	1.86	3.27		57.58			62.71
Indiana Harbor Belt Railroad Co.	44.25					28.24	36.11	108.60
Muncie & Western Railroad Co.	6.77	3.18	3.59					6.77
Munroe Belt Railway Co.								
Total.....	258.58	93.92	120.41		57.58	28.24	43.83	388.23
Grand total, entire line.....	25,013.39	19,161.59	5,191.36	4,101.07	6,076.42	2,777.75	2,806.17	40,786.12

SWITCHING OR TERMINAL COMPANIES OPERATED, WHOSE MILEAGE IS NOT INCLUDED IN THE ABOVE TABLES, BUT TO BE ADDED THERETO (IN INDIANA).

SWITCHING ROADS.							
1.	A.	B.	2.	3.	4.	5.	Total, State of Indiana.
Baltimore & Ohio—Chicago Terminal Railroad Co.	31.56	21.56					36.27
Bedford & Wallner Railroad Co.	2.94					4.71	2.94
Chicago & South Bend Railroad	1.00	.09					1.00
Elwood, Anderson & Lapel Railroad Co.	4.51	3.40					4.51
Indianapolis Union Railway Co.	5.13	3.27		57.58			62.71
Indiana Harbor Belt Railroad Co.	11.04				28.24	4.41	43.69
Muncie & Western Railroad Co.							
Muncie Belt Railway Co.	6.77	3.59					6.77
Total	62.95	31.91		57.58	28.24	9.12	157.89
Grand total, State of Indiana.	6,102.70	721.34	890.66	591.12	175.19	339.78	8,009.51

ROADS LEASED OR OTHERWISE ASSIGNED FOR OPERATION, WHOSE MILEAGE IS INCLUDED IN THE ABOVE
OPERATING ROADS.

NON-OPERATING ROADS.	Entire Line, Single Track.	State of Indiana, Single Track.	Name of Lessee.
Baltimore & Ohio & Chicago Railroad Co.	283.89	146.66	Baltimore & Ohio Railroad Co.
Baltimore & Ohio Southwestern Railroad Co.	926.17	240.78	Baltimore & Ohio Railroad Co.
Bethford Belt Railway Co.	4.19	4.19	Chicago, Terre Haute & Southeastern Railway Co.
Bloomington Southern Railroad Co.	2.13	2.13	Indianapolis Southern Railroad Co.
Chicago, Indiana & Eastern Railway Co.	43.02	43.02	Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.
Chicago, Lake Shore & Eastern Railway Co.	274.14	185.89	Elgin, Joliet & Eastern Railway Co.
Chicago, St. Louis & New Orleans Railroad Co.	1,320.41	4.94	Illinois Central Railroad Co.
Cincinnati, Findlay & Ft. Wayne Railway Co.	91.39	17.51	Cincinnati, Hamilton & Dayton Railway Co.
Cincinnati, Indianapolis & Western Railway Co.	360.85	155.07	Cincinnati, Hamilton & Dayton Railway Co.
Cincinnati, Richmond & Ft. Wayne Railroad Co.	85.83	85.83	Grand Rapids & Indiana Railway Co.
Evansville Belt Railway Co.	3.77	3.77	Chicago, Terre Haute & Southeastern Railway Co.
Fort Wayne & Jackson Railroad Co.	97.53	53.30	Lake Shore & Michigan Southern Railway Co.
Indianapolis & Louisville Railway Co.	59.70	59.70	Chicago, Indianapolis & Louisville Railway Co.
Indiana Stone Railroad Co.	18.26	18.26	Chicago, Indianapolis & Louisville Railway Co.
Pittsburgh, Fort Wayne & Chicago Railway Co.	470.53	153.00	Chicago, Indianapolis & Louisville Railway Co.
South Chicago & Southern Railroad Co.	23.05	8.01	Pennsylvania Railroad Co.
Total	4,064.86	1,182.06	Pennsylvania Co.

STEAM ROADS—TABLE No. 2.

COST OF ROAD, EQUIPMENT, AND GENERAL EXPENDITURES.

OPERATING ROADS.	COST OF ROAD, EQUIPMENT, AND GENERAL EXPENDITURES.				
	Total Cost to June 30, 1911. Entire Line.	Cost of Road, Equipment and General Expenditures, Per Mile of Line.	Total Cost Per Mile of Line, State of Indiana.	Stocks and Bonds Owned.	All Other Assets.
Baltimore & Ohio Railroad Co.	\$65,630.63	\$22,172.52	\$22,172.52		\$19,522.63
Bedford Stone Railway Co.	2,065,487.08	17,566.65	17,566.65		53,344.84
Central Indiana Railway Co.	10,804,993.33	41,447.67	40,222.93	\$1.00	12,381,360.09
Chesapeake & Ohio Railway Co. of Indiana.	58,564,406.09	71,253.07		153,077.00	76,391,382.77
Chicago & Eastern Illinois Railroad Co.	20,882,065.29	83,511.98	83,511.98	11,361,402.87	65,029,979.00
Chicago & Erie Railroad Co.	648,304.38	16,869.74	16,869.74	1,298,100.00	731,364.33
Chicago & Wabash Valley Railway Co.	47,275,117.82	140,926.24		2,100.00	50,323,272.82
Chicago, Indiana & Southern Railroad Co.	32,493,402.86	63,864.08	63,864.08	3.00	3,048,152.00
Chicago, Indianapolis & Louisville Railroad Co.				4,159,546.86	4,345,255.11
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Ry. Co.)	13,710,701.00	39,087.43	39,141.21	6,753.00	873,534.88
Cincinnati, Bluffton & Chicago Railroad Co.	1,084,772.48	20,650.00	20,650.00		1,084,772.48
Cincinnati, Hamilton & Dayton Railroad Co.	32,658,141.95	87,614.06		21,011,589.34	13,485,236.03
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	138,467,257.65	76,757.81		5,058,624.00	152,317,579.62
Elgin, Joliet & Eastern Railway Co.	17,106,265.55	75,142.84	59,083.31	1,014.00	7,130,773.45
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	16,051,374.50	50,609.71	50,609.71	108,785.00	17,540,478.15
Ferdinand Railroad Co.	36,588.73	5,646.41	5,646.41		37,528.65
Grand Rapids & Indiana Railway Co.	16,344,801.02	37,871.13	38,236.05	120,220.00	17,918,377.58
Grand Trunk Western Railway Co.	27,424,741.37	82,876.74	77,159.23	5,446,066.67	32,271,331.62
Illinois Central Railroad Co.	111,540,341.68	53,141.78		46,124,978.46	330,139,534.04
Indianapolis Southern Railroad Co.	11,690,303.68	66,073.04			12,006,276.67
Lake Erie & Western Railroad Co.	35,802,308.21	50,421.65	50,421.65	179,506.00	37,088,638.29
Lake Shore & Michigan Southern Railway Co.	129,540,773.37	147,394.81		120,434,404.88	285,716,018.04
Louisville & Nashville Railroad Co.	173,642,922.18	42,604.55	42,604.55	46,707,112.76	260,045,738.78
Loisville, New Albany & Corydon Railroad Co.	243,225.00	22,111.36	22,111.36	5,000.00	18,304.38
Michigan Central Railroad Co.	65,548,064.00	180,937.00		9,390,992.00	24,835,510.00
New Jersey, Indiana & Illinois Railroad Co.	342,511.76	28,928.36	28,928.36		18,882.24
New York, Chicago & St. Louis Railroad Co.	57,122,726.07	107,129.89	107,129.89	1,512,700.00	10,332,077.30
Peoria & Eastern Railway Co.	24,373,019.09	72,127.00		203,800.00	24,483,311.97
Pennsylvania Co.	20,703,064.41			201,442,734.16	37,978,311.37
					260,124,109.94

STEAM ROADS—TABLE No. 2—Continued.

OPERATING ROADS.	Total Cost to June 30, 1911. Entire Line.	Cost of Road, Equipment, and General Expenditures, Per Mile of Line.	Total Cost Per Mile of Line, State of Indiana.	Stocks and Bonds Owned.	All Other Assets.	Total Assets.
Pere Marquette Railroad Co.	\$88,539,433 03	\$42,382 02	\$28,342,440 01	\$9,388,579 85	\$126,270,452 89
Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.	136,256,991 26	122,252 92	3,502,131 31	13,834,240 90	153,593,363 47
St. Joseph Valley Railway Co.	400,634 32	14,733 58	400,634 32
Southern Railway Co.	384,008,913 52	57,986 19	89,168,451 11	28,450,988 98	501,628,353 61
Southern Indiana Ry. Co. (Subsequent to January 1, 1911, Known as Chicago, Terre Haute & Southeastern Ry. Co.)
Syracuse & Milford Railway Co.
Toledo, St. Louis & Western Railroad Co.	38,497,636 10	\$5,413 64	12,436,503 00	2,015,864 74	52,950,830 84
Vandalia Railroad Co.	33,746,066 72	51,860 38	299,567 00	3,992,937 30	38,038,591 11
Wabash Railroad Co.	174,203,927 37	89,218 68	30,208,845 29	17,222,961 45	225,104,919 05
Total	\$1,921,829,113 50	\$2,168,584 93	\$931,530 98	\$638,686,948 72	\$873,644,850 37	\$2,983,137,954 05
SWITCHING ROADS.						
Baltimore & Ohio—Chicago Terminal Railroad Co.	\$37,417,500 86	\$445,871 08	\$1 00	\$1,427,770 42	\$38,845,272 28
Bedford & Wallner Railroad Co.	55,163 86	17,006 82	4,300 00	6,126 64	65,658 48
Chicago & South Bond Railroad
Elwood, Anderson & Lapel Railroad Co.	102,477 81	22,722 35	6,188 32	108,666 13
Indianapolis Union Railway Co.	2,427,710 78	166,738 37	565,899 86	2,993,610 64
Indiana Harbor Belt Railroad Co.	9,273,982 00	209,581 00	212,800 00	9,486,782 00
Muncie & Western Railroad Co.
Muncie Belt Railway Co.	136,316 42	136,316 42
Total	\$49,413,151 73	\$861,919 62	\$206,467 54	\$217,101 00	\$2,005,989 24	\$51,636,305 95

NON-OPERATING ROADS.

Baltimore & Ohio & Chicago Railroad Co.	\$22,166,102 37	\$84,294 58	\$3,190,697 49	\$22,166,102 37
Baltimore & Ohio Southwestern Railroad Co.	45,635,029 23	49,525 77	8,139 98	49,075,776 72
Bedford Belt Railway Co.	600,610 02	143,343 69	50,000 00	608,750 00
Bloomington Southern Railroad Co.	76,144 90	35,748 78	105,560 81	126,144 90
Chicago, Indiana & Eastern Railway Co.	1,753,787 80	40,766 80	2,051,990 48	1,859,348 61
Chicago, Lake Shore & Eastern Railway Co.	20,222,097 38	73,765 58	727,187 11	26,274,087 86
Chicago, St. Louis & New Orleans Railroad Co.	83,732,623 10	64,417 14	193,383 05	84,459,810 21
Cincinnati, Findlay & Ft. Wayne Railway Co.	2,206,866 95	24,147 79	20,870 52	2,400,250 00
Cincinnati, Indianapolis & Western Railway Co.	16,045,519 39	44,465 90	3,850 00	16,066,389 91
Cincinnati, Richmond & Ft. Wayne Railroad Co.	4,241,164 56	49,413 54	6,761 47	4,245,014 56
Evansville Belt Railway Co.	341,600 93	90,610 33	2,727,548 00
Fort Wayne & Jackson Railroad Co.	2,727,548 00	27,968 25	1,640,606 14
Indianapolis & Louisville Railway Co.	1,640,606 14	27,480 84	314,675 75
Indiana Stone Railroad Co.	314,675 75	17,233 06	98,091,389 25
Pittsburgh, Ft. Wayne & Chicago Railway Co.	83,636,508 30	177,792 07	3,972,915 45	1,092,952 54
South Chicago & Southern Railroad Co.	922,401 44	40,017 42	170,551 10
Total	\$286,283,285 26	\$990,989 54	\$705,123 09	\$14,712,015 50	\$10,501,907 46	\$311,497,209 22	

STEAM ROADS—TABLE No. 3.

CAPITAL STOCK.

OPERATING ROADS.	Number of Shares Authorized	Par Value of One Share.	Total Par Value Authorized.	Total Par Value Outstanding.	Total Par Value Held by Respondent Corporation in Treasury.	Total Par Value Not Held by Respondent Corporation.	Dividends Declared During Year.	
							Rate.	Amount.
Baltimore & Ohio Railroad Co.	500	\$100	\$50,000	\$50,000		\$50,000		
Bedford Stage-Railway Co.	1,200	100	120,000	120,000		120,000		
Central Indiana Railway Co.	50,000	100	5,000,000	5,000,000		5,000,000		
Chesapeake & Ohio Railway Co. of Indiana	250,000	100	25,000,000	22,618,100	\$6,569,600	16,048,500	9½ and 6	\$1,215,553 00
Chicago & Eastern Illinois Railroad Co.	1,000	100	100,000	100,000		100,000		
Chicago & Erie Railroad Co.	3,500	100	350,000	350,000		350,000		
Chicago & Walbush Valley Railway Co.	200,000	100	20,000,000	20,000,000		20,000,000		
Chicago, Indiana & Southern Railroad Co.	155,000	100	15,500,000	15,500,000	3,550	15,496,450	3¼ and 4	541,129 00
Chicago, Indianapolis & Louisville Railway Co.	43,000	100	4,300,000	4,300,000		4,300,000		
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Railway Co.)	11,250	100	1,125,000	1,125,000		1,125,000		
Cincinnati, Bluffton & Chicago Railroad Co.	160,000	100	16,000,000	8,248,575	400	8,248,175		
Cincinnati, Hamilton & Dayton Railroad Co.	600,000	100	60,475,000	57,485,297	29,100	57,456,197		525,056 00
Cleveland, Cincinnati, Chicago & St. Louis	9,500	50	475,000	475,000		475,000	4	400,000 00
Cleveland, Cincinnati, Chicago & St. Louis	100,000	100	10,000,000	10,000,000		10,000,000		
Elgin, Joliet & Eastern Railway Co.	50	50	5,283,333	5,270,716	62,460	5,208,256	5	260,310 00
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	105,666½							
Frederick Railroad Co. (Receivership)	60,000	100	6,000,000	5,701,700		5,701,700		
Grand Rapids & Indiana Railway Co.	60,000	100	6,000,000	6,000,000		6,000,000		
Grand Trunk Western Railway Co.	1,335,520	100	133,552,000	119,285,700	7,640	119,278,060	7	7,650,275 50
Illinois Central Railroad Co.	20,000	100	2,000,000	2,000,000		2,000,000		
Indianapolis Southern Railroad Co.	500,000	100	50,000,000	23,680,000		23,680,000		
Lake Erie & Western Railroad Co.	500,000	100	50,000,000	50,000,000	3,900	49,996,100	18	8,999,298 00
Lake Shore & Michigan Southern Railway Co.	600,000	100	60,000,000	60,000,000		60,000,000	7	4,200,000 00
Louisville & Nashville Railroad Co.	1,500	100	150,000	145,000	5,000	145,000	3	4,350 00
Louisville, New Albany & Corydon Railroad Co.	187,380	100	18,738,000	18,738,000	1,600	18,736,400	6	1,124,280 00
Michigan Central Railroad Co.	1,000	100	100,000	100,000		100,000		
New Jersey, Indiana & Illinois Railroad Co.								

New York, Chicago & St. Louis Railroad Co.	300,000	100	30,000,000	30,000,000	12,700	29,987,300	3 and 5	1,219,573
Peoria & Eastern Railway Co.	100,000	100	10,000,000	10,000,000	800	9,990,200	7	5,600,000 00
Pennsylvania Co.	1,600,000	50	80,000,000	80,000,000	26,327,000	80,000,000		
Pere Marquette Railroad Co.	285,000	100	28,500,000	2,172,910				
Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.	750,000	100	75,000,000	65,172,024	421,800	64,750,224	5	3,157,318 75
St. Joseph Valley Railway Co.	4,000	100	75,400,000	24,460		24,460		
Southern Railway Co.	3,500,000	100	350,000,000	180,000,000		180,000,000	1	600,000 00
Southern Indiana Railway Co. (Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Railway Co.)								
Syracuse & Milford Railway Co.	200,000	100	20,000,000	20,000,000	52,400	19,947,600	4	398,104 00
Toledo, St. Louis & Western Railroad Co.	250,000	100	25,000,000	14,606,600		14,606,600	43	693,808 50
Vandalia Railroad Co.	2,000,000	100	200,000,000	92,400,426	296,300	92,104,126		
Wabash Railroad Co.								
Total	13,945,016		\$1,308,743,333	\$930,284,508	\$33,794,340	\$920,649,348		\$36,580,635 00
SWITCHING ROADS.								
Baltimore & Ohio—Chicago Terminal Railroad Co.	80,000	\$100	\$8,000,000	\$8,000,000		\$8,000,000		
Bedford & Wallner Railroad Co.	500	100	50,000	45,700	\$4,300	41,400		
Chicago & South Bend Railroad	500	100	50,000	7,500		7,500		
Elwood, Anderson & Lapel Railroad Co.	500	100	50,000	50,000		50,000	8	\$4,000 00
Indianapolis Union Railway Co. (No stock issue.)								
Indiana Harbor Belt Railroad Co.	24,500	100	2,450,000	2,450,000		2,450,000		
Muncie & Western Railroad Co.	1,000	50	50,000	50,000		50,000		
Muncie Belt Railway Co.								
Total	107,000		\$10,650,000	\$10,603,200	\$4,300	\$10,598,900		\$4,000 00

STEAM ROADS—TABLE No. 3—Continued.

CAPITAL STOCK.

	PURPOSE OF THE ISSUE.						Number of Shares Issued During Year.	Cash Realized on Amount Issued During Year.	Total Number of Shares Outstanding.	Total Cash Realized.	
	Issued for Cash.	Issued for Construction of New Properties.	Issued for Additions and Betterments.	Issued for Purchase of Railway or Other Property.	Issued for Acquisition of Securities.	Issued for Reorganization.					
OPERATING ROADS.											
Baltimore & Ohio Railroad Co.									500	\$50,000	
Bedford Stone Railway Co.									1,200	120,000	
Central Indiana Railway Co.	12			120,000				\$1,200	50,000	1,200	
Chesapeake & Ohio Railway Co. of Indiana				49,988			30,000		226,181		
Chicago & Eastern Illinois Railroad Co.		87,946		108,235			100,000		1,000	350,000	
Chicago & Erie Railroad Co.									200,000	20,000,000	
Chicago & Wabash Valley Railway Co.	350						143,837½		155,000		
Chicago, Indiana & Southern Railroad Co.	200,000										
Chicago, Indianapolis & Louisville Railway Co.	11,162½										
Chicago, Terre Haute and Southeastern Ry. Co. (Prior to January 1, 1911, known as Southern Indiana Ry. Co.)	7	10,270		42,993			43,000	700	43,000	700	
Cincinnati, Bluffton & Chicago Railroad Co.				980					11,250		
Cincinnati, Hamilton & Dayton Railway Co.						82,485½			570,563	21,025,156	
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	228,376				37,187	305,000			100,000	22,100	
Elgin, Joliet & Eastern Railway Co.	21	39,979	40,000	20,000					105,414½		
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	79,747½					25,666½			500		
Ferdinand Railroad Co.	500								57,917	214,555	
Grand Rapids & Indiana Railway Co.									60,000	6,000,000	
Grand Trunk Western Railway Co.									1,192,857	110,066,386	
Illinois Central Railroad Co.	1,092,960				99,897				20,000		
Indianapolis Southern Railroad Co.				20,000					236,800		
Lake Erie & Western Railroad Co.				236,800					500,000		
Lake Shore & Michigan Southern Railway Co.									599,179	49,454,066	
Louisville & Nashville Railroad Co.							6	600	1,450		
Louisville, New Albany & Corydon Railroad Co.							1,450		187,380		
Michigan Central Railroad Co.											

STEAM ROADS—TABLE No. 3—Continued.

	PURPOSE OF THE ISSUE.						Number of Shares Issued During Year.	Cash Realized on Amount Issued During Year.	Total Number of Shares Outstanding.	Total Cash Realized.
	Issued for Cash.	Issued for Construction of New Properties	Issued for Additions and Betterments.	Issued for Purchase of Railway or Other Property.	Issued for Acquisition of Securities.	Issued for Reorganization.				
OPERATING ROADS.										
New Jersey, Indiana & Illinois Railroad Co.	1,000								1,000	\$100,000
New York, Chicago & St. Louis Railroad Co.						300,000			300,000	
Peoria & Eastern Railway Co.	\$400,000					100,000			100,000	
Pennsylvania Co.	\$400,000				360,000				1,600,000	
Pere Marquette Railroad Co.							676		285,000	11,764,900
Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.	117,649			38,562	55,855	434,421	15,076		651,720	24,460
St. Joseph Valley Railway Co.	244½			57,000	43,000	1,700,000			1,800,000	6,000,000
Southern Railway Co.		60,000		50,000					110,000	
Southern Indiana Railway Co. (Issue prior to Receivership)									200,000	
Syracuse & Milford Railway Co.						200,000			146,066	
Toledo, St. Louis & Western Railroad Co.						146,066	4		924,004	
Vandalia Railroad Co.					404,004	520,000	218			
Wabash Railroad Co.										
Total	2,972,028	198,195	40,000	744,558	999,943	4,431,842	108,980	\$2,500	10,524,214	\$225,173,523
SWITCHING ROADS.										
Baltimore & Ohio—Chicago Terminal Railroad Co.										
Bedford & Waller Railroad Co.	35			79,965					80,000	\$80,000,000
Chicago & South Bend Railroad									500	7,500
Elwood, Anderson & LaPlat Railroad Co.									500	50,000
Indianapolis Union Railway Co. (No capital stock issued.)										
Indiana Harbor Belt Railroad Co.	24,500								24,500	2,450,000
Monroe & Western Railroad Co.										
Monroe Belt Railway Co.									1,000	
Total	24,535			79,965					106,500	\$82,507,500

NON-OPERATING ROADS.

Baltimore & Ohio & Chicago Railroad Co.....		30,069							30,069		
Baltimore & Ohio Southwestern Railroad Co.....		2,500							2,500		
Bedford Belt Railway Co.....		2,500							2,500		
Bloomington Southern Railroad Co.....		10,000							10,000		
Chicago, Indiana & Eastern Railway Co.....											\$50,000
Chicago, Lake Shore & Eastern Railway Co.....	90,000										9,000,000
Chicago, St. Louis & New Orleans Railroad Co.....	100,000										10,000,000
Cincinnati, Findlay & Ft. Wayne Railway Co.....								12,500			12,500
Cincinnati, Indianapolis & Western Railway Co.....	89‡							71,158			71,247‡
Cincinnati, Richmond & Ft. Wayne Railroad Co.....								43,732			8,953
Evansville Belt Railway Co.....											
Fort Wayne & Jackson Railroad Co.....	1,000							27,275			1,000
Indianapolis & Louisville Railway Co.....		1,000									1,000
Indiana Stone Railroad Co.....		150									150
Pittsburgh, Fort Wayne & Chicago Railway Co.....	115,000							82,142		16,541	644,088
South Chicago & Southern Railroad Co.....	1,617							6,808			8,425
Total.....	307,706	44,219						239,883	16,541		1,082,486
											\$30,820,653

‡Includes 60,000 equipment shares.

©Stock dividend.

STEAM ROADS—TABLE No. 4.

FUNDED DEBT.

OPERATING ROADS.	Total Par Value Authorized.	Total Par Value Outstanding.	TOTAL PAR VALUE HELD BY RESPONDENT CORPORATION.		Total Par Value Not Held by Respondent Corporation.	INTEREST.	
			In Treasury.	In Sinking or Other Fund.		Amount Accrued During Year.	Amount Paid During Year.
Baltimore & Ohio Railroad Co.							
Bedford Stone Railway Co. (No funded debt)							
Central Indiana Railway Co.	\$4,000,000	\$1,500,000			\$1,500,000	\$60,000	
Chesapeake & Ohio Railway Co.	30,000,000	6,804,370	\$349,000		5,455,370	290,931	\$10,093
Chicago & Eastern Illinois Railway Co.	111,908,577	49,277,232	2,000		49,275,232	2,231,402	2,236,382
Chicago & Erie Railroad Co.	22,300,000	22,300,000			22,300,000	619,900	621,075
Chicago & Wabash Valley Railway Co.	224,100	222,000	2,100		222,000	Waived.	
Chicago, Indiana & Southern Railroad Co.	24,553,348	24,553,348			24,553,348	1,019,054	1,021,154
Chicago, Indianapolis & Louisville Railway Co.	17,725,000	17,725,000	1,558,750	\$1,010,000	15,156,250	1,724,901	651,620
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Railway Co.)							
Cincinnati, Bluffton & Chicago Railroad Co.	26,500,000	9,850,000			9,850,000	92,499	78,541
Cincinnati, Hamilton & Dayton Railway Co.	1,500,000	1,500,000			1,500,000	75,000	
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	136,816,680	77,720,000	4,121,000	106,000	55,117,000	1,570,358	1,643,736
Elgin, Joliet & Eastern Railway Co.	146,248,340	86,672,375	83,000	578,230	86,011,145	3,830,769	3,853,658
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	10,000,000	10,000,000			10,000,000	500,000	500,000
Ferdinand Railroad Co.	16,425,000	10,200,000	30,000		10,230,000	568,850	571,182
Grand Rapids & Indiana Railway Co.		57,784			57,784		142
Grand Trunk Western Railway Co.	10,525,000	10,275,000			10,275,000	428,675	428,605
Illinois Central Railroad Co.	20,372,000	20,372,000			20,372,000	793,420	861,721
Indianapolis Southern Railroad Co.	292,859,000	187,451,000	30,258,000		157,193,000	4,359,270	4,360,551
Lake Erie & Western Railroad Co.	10,000,000	10,000,000			10,000,000	441,666	102,441
Louisville & Nashville Railroad Co.	150,400,000	10,977,872			10,977,872	548,555	548,555
Louisville, New Albany & Corydon Railroad Co.	155,339,757	150,400,000			150,400,000	5,570,936	5,514,929
Michigan Central Railroad Co.	224,980,000	153,339,757			136,910,757	5,745,195	5,874,945
New Jersey, Indiana & Illinois Railroad Co.	68,792,855	41,529,480	10,501,000	7,928,000	100,000	5,507	5,507
New York, Chicago & St. Louis Railroad Co.	230,000	230,000			41,529,480	1,672,260	1,571,876
	30,000,000	29,057,000			250,000	18,750	18,750
					29,057,000	1,165,163	1,168,483

Peoria & Eastern Railway Co.	15,500,000	13,985,100	102,000	13,883,100	564,260	564,260
Pennsylvania Co.	165,194,504	132,875,830	581,000	132,294,830	5,111,704	5,162,602
Pere Marquette Railroad Co.	91,983,146	23,042,000	68,941,146	2,997,129	2,826,015
Pittsburgh Cincinnati Chicago & St. Louis Railway Co.	100,625,000	65,808,166	65,808,166	2,670,885	2,724,568
St. Joseph Valley Railway Co. (No funded debt)	259,516,800	16,101,800	250,000	241,165,000	11,126,921	11,288,533
Southern Railway Co.
Southern Indiana Railway Co. (Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Railway Co.)
Syracuse & Milford Railway Co.	28,577,000	28,577,000	450,000	28,127,000	981,015	984,590
Toledo, St. Louis & Western Railroad Co.	22,200,000	19,811,094	19,811,094	817,281	818,930
Vandalia Railroad Co.	126,771,087	9,844,889	116,926,198	4,854,305	4,854,305
Wabash Railroad Co.
Total	\$1,688,636,404	\$1,675,522,441	\$96,343,549	\$10,555,230	\$1,545,239,772	\$61,450,500	\$60,867,749
SWITCHING ROADS.							
Baltimore & Ohio—Chicago Terminal Railroad Co.	\$50,000,000	\$29,044,000	\$29,044,000	\$1,172,200	\$52,200
Bedford & Wallner Railroad Co.
Chicago & South Bend Railroad. (No funded debt.)
Elwood, Anderson & Lapel Railroad Co. (No funded debt)
Indianapolis Union Railway Co.	1,000,000	928,000	\$72,000	928,000	41,793	41,805
Indiana Harbor Belt Railroad Co.	25,000,000	6,725,000	6,725,000	269,000	269,000
Muncie & Western Railroad Co.
Muncie Belt Railway Co.	40,000	40,000	40,000	2,400	2,400
Total	\$76,040,000	\$36,737,000	\$72,000	\$36,737,000	\$1,485,393	\$365,405

STEAM ROADS—TABLE No. 4—Continued.

OPERATING ROADS.	Total Par Value Authorized.	Total Par Value Outstanding.	TOTAL PAR VALUE HELD BY RESPONDENT CORPORATION.		Total Par Value Not Held by Respondent Corporation.	INTEREST.	
			In Treasury.	In Sinking or Other Fund.		Amount Accrued During Year.	Amount Paid During Year.
NON-OPERATING ROADS.							
Baltimore & Ohio & Chicago Railroad Co.	\$7,744,000	\$7,744,000			\$7,744,000	\$464,640	
Baltimore & Ohio Southwestern Railroad Co.	45,000,000	45,000,000			45,000,000	1,575,000	
Bedford Belt Railway Co.	500,000	350,000			350,000	17,500	\$17,500
Bloomington Southern Railroad Co. (No funded debt)							
Chicago, Indiana & Eastern Railway Co.	1,100,000	600,000			600,000	31,000	
Chicago, Lake Shore & Eastern Railway Co.	9,000,000	9,000,000			9,000,000	405,000	405,000
Chicago, St. Louis & New Orleans Railroad Co.	34,500,000	34,500,000			34,500,000	1,169,315	1,169,315
Cincinnati, Findlay & Ft. Wayne Railway Co.	1,150,000	1,150,000			1,150,000	46,000	46,000
Cincinnati, Indianapolis & Western Railway Co.	11,606,000	7,884,000			7,884,000	346,980	344,980
Cincinnati, Richmond & Ft. Wayne Railroad Co.	1,800,000	1,800,000			1,800,000	126,000	128,135
Evansville Belt Railway Co. (No funded debt)							
Fort Wayne & Jackson Railroad Co. (No funded debt)	6,000,000	1,650,000	\$125,000		1,525,000	61,000	61,100
Indianapolis & Louisville Railway Co.		253,000			253,000	12,650	12,650
Indiana Stone Railroad Co.							
Pittsburgh, Ft. Wayne & Chicago Railway Co.	12,410,000	12,410,000		\$7,365,500	5,044,500	366,152	368,235
South Chicago & Southern Railroad Co. (No funded debt)							
Total	\$130,810,000	\$87,875,500	\$125,000	\$7,365,500	\$114,850,500	\$4,621,237	\$2,552,915

STEAM ROADS—TABLE No. 4—Continued.

FUNDED DEBT.

OPERATING ROADS.	RECAPITULATION OF CAPITALIZATION AND FUNDED DEBT.				CURRENT ASSETS AND LIABILITIES.—BALANCE.			
	Total Per Value Outstanding— Capital Stock, Funded Debt.	Assignment to Railways.	Amount Per Mile of Line.		Cash and Current Assets.	Current Liabilities.	Balance.	Materials and Supplies on Hand.
			Miles.	Amount Per Mile.				
Baltimore & Ohio Railroad Co.	\$50,000	\$50,000	2.96	\$16,892 00	\$85,153 26	\$65,706 86	\$19,446 40	
Bedford Stone Railway Co.	1,620,000	1,620,000	117.58	13,778 00	18,354 60	1,629,546 36	1,611,191 76	\$23,023 04
Central Indiana Railway Co.	10,804,370	10,804,370	260.69	41,445 00	313,125 79	1,480,854 44	1,167,728 65	265,937 88
Chesapeake & Ohio Railway Co. of Indiana	71,895,332	71,895,332	819.19	87,763 00	3,163,027 24	2,163,430 51	999,596 73	1,171,935 30
Chicago & Eastern Illinois Railroad Co.	22,400,000	22,400,000	249.57	89,755 00	459,086 38	292,405 65	166,680 73	235,827 08
Chicago & Erie Railroad Co.	574,100	574,100	28.43	14,938 00	2,100 00	130,771 38	128,671 38	
Chicago & Wabash Valley Railway Co.	44,553,348	44,553,348	335.46	132,813 00	2,086,970 56	5,413,578 04	3,326,607 48	894,135 96
Chicago, Indiana & Southern Railroad Co.	33,225,000	33,225,000	508.79	65,301 00	1,529,562 81	1,163,630 30	365,932 51	467,720 41
Chicago, Indianapolis & Louisville Railway Co.								
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The South- ern Indiana Railway Co.)	14,188,750	14,188,750	350.77	40,450 00	463,818 31	349,902 92	152,335 96	166,469 57
Cincinnati, Bluffton & Chicago Railroad Co.	2,625,000		32.53	49,971 00				
Cincinnati, Hamilton & Dayton Railway Co.	85,968,575	85,968,575	372.75	230,633 00	7,108,750 78	3,293,521 54	3,815,229 24	599,979 55
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	144,157,672	144,157,672	1,803.95	79,912 00	7,061,174 38	9,857,113 60	2,795,939 22	1,793,170 06
Elgin, Joliet & Eastern Railway Co.	20,050,000	20,000,000	227.65	87,854 00	3,423,598 09	2,169,003 34	1,254,594 75	554,534 63
Evansville & Terre Haute Railroad Co. and Evans- ville & Indianapolis Railroad Co.	15,530,716	15,530,716	320.93	48,395 00	1,362,316 89	552,555 70	809,781 19	158,624 96
Ferdinand Railroad Co.	57,784		6.48	8,917 00	877 42		897 42	392 90
Grand Rapids & Indiana Railway Co.	16,405,700	16,390,501	431.59	37,977 00	17,918,377 58		183,625 20	319,533 91
Grand Trunk Western Railway Co.	26,372,000	26,372,000	330.91	79,695 00				
Illinois Central Railroad Co.	306,736,700	306,736,700	2,191.51	139,968 00				
Indianapolis Southern Railroad Co.	12,000,000	12,000,000	176.93	67,824 00				
Lake Erie & Western Railroad Co.	34,657,872		710.06	48,810 00	1,067,104 05	3,164,055 23	2,096,951 18	620,444 80
Lake Shore & Michigan Southern Railway Co.	218,619,708				26,223,414 26	27,681,764 36	1,458,350 10	4,437,942 76
Louisville & Nashville Railroad Co.	215,339,757	215,339,757	4,334.23	49,683 00	40,518,354 78	6,017,299 56	34,501,655 22	4,976,824 16
Louisville, New Albany & Corydon Railroad Co.	245,000	245,000	11.00	22,272 00	18,199 38	9,216 92	8,982 46	103 00

STEAM ROADS—TABLE No. 4—Continued.

OPERATING ROADS.	RECAPITULATION OF CAPITALIZATION AND FUNDED DEBT.				CURRENT ASSETS AND LIABILITIES.—BALANCE.			
	Total Par Value Outstanding.— Capital Stock, Funded Debt.	Assignment to Railways.	Amount Per Mile of Line.		Cash and Current Assets.	Current Liabilities.	Balance.	Materials and Supplies on Hand.
			Miles.	Amount Per Mile.				
Michigan Central Railroad Co.	\$60,267,480	\$60,267,480	1,080.49	\$55,778 00	\$18,036,169 00	\$21,434,397 00	\$3,398,228 00	\$2,649,027 00
New Jersey, Indiana & Illinois Railroad Co.	350,000	350,000	11.84	29,563 00	18,307 24	16,035 36	2,271 88	575 00
New York, Chicago & St. Louis Railroad Co.	59,057,000	59,057,000	533.21	110,757 00	6,942,383 14	2,472,769 29	4,469,613 85	887,586 44
Peoria & Eastern Railway Co.	23,985,100	23,985,100	337.92	70,979 00	800 00	96,465 00	85,063 00	
Pennsylvania Co.	212,875,830	212,875,830			10,797,699 07	16,994,295 92	6,196,596 85	3,052,273 43
Pere Marquette Railroad Co.	120,483,146	120,483,146	2,089.08	57,672 00	4,793,795 33	3,121,952 83	1,671,842 50	1,228,922 92
Pittsburgh, Cincinnati, Chicago & St. Louis Rail- way Co.	130,980,191	130,980,191	1,114.55	117,518 00	10,180,563 19	3,654,306 93	6,526,256 26	2,442,101 61
St. Joseph Valley Railway Co. (No funded debt)								
Southern Railway Co.	439,516,800	439,516,800	4,760.21	92,332 00	31,585,012 00	10,231,621 00	21,353,391 00	3,837,425 00
Southern Indiana Railway Co. (Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Railway Co.)								
Syracuse & Milford Railway Co.	48,577,000	48,577,000	450.72	107,776 00	1,596,385 62	874,006 44	722,379 18	174,993 40
Toledo, St. Louis & Western Railroad Co.	34,417,694	34,417,694	650.71	52,892 00	2,816,143 71	1,370,019 06	1,446,124 05	919,587 53
Vandalia Railroad Co.	219,171,513	219,171,513	2,041.38	107,365 00	3,469,184 94	6,593,498 41	3,124,313 47	1,001,622 97
Wabash Railroad Co.								
Total	\$2,647,754,298	\$2,610,317,283	26,724.07	\$59,142 00	\$203,060,350 10	\$150,028,456 93	\$103,870,858 02	\$32,880,717 27

SWITCHING ROADS.

Baltimore & Ohio—Chicago Terminal Railroad Co.	\$37,044,000	\$37,044,000	83.92	\$441,420 40	\$1,109,826 61	\$2,274,023 37	\$1,164,196 76	\$317,943 81
Bedford & Wallner Railroad Co. (No funded debt.)								
Chicago & Southern Railroad Co. (No funded debt.)								
Elwood, Anderson & Lapel Railroad Co.	50,000	50,000	4.51	11,080 00	1,459 51	5,968 10	4,508 59	4,686 72
Indianapolis Union Railway Co.	928,000	928,000	5.16	179,845 00	225,564 07	101,823 73	153,741 94	55,446 14
Indiana Harbor Belt Railroad Co.	9,175,000	9,175,000	44.25	207,352 00	1,841,049 00	3,193,078 00	1,861,429 00	31,221 00
Muncie & Western Railroad Co.								
Muncie Belt Railway Co.	90,000	90,000			9,262 80	4,347 48	4,915 32	
Total.....	\$47,287,000	\$47,287,000	137.84	\$839,097 40	\$2,087,762 59	\$5,579,240 68	\$3,178,791 61	\$409,297 67

NON-OPERATING ROADS.

Baltimore & Ohio & Chicago Railroad Co.	\$9,247,450	\$9,247,450	262.96	\$35,175 00		\$12,918,652 37		
Baltimore & Ohio Southwestern Railroad Co.	49,000,000	49,000,000	921.44	53,178 00	\$3,190,697 49	13,273 78	\$3,175,423 71	
Bedford Belt Railway Co.	600,000	600,000	4.19	143,198 00		8,750 00		
Bloomington Southern Railroad Co.	50,000	50,000	2.13	23,474 00				
Chicago, Indiana & Eastern Railway Co.	1,600,000	1,600,000	43.02	37,192 00	5,560 81	592,389 31	586,828 50	
Chicago, Lake Shore & Eastern Railway Co.	18,000,000	18,000,000	274.14	65,660 00	456,892 49	870,730 08	413,837 59	
Chicago, St. Louis & New Orleans Railroad Co.	44,500,000	44,500,000	1,299.85	34,235 00				
Cincinnati, Findlay & Ft. Wayne Railway Co.	2,400,000	2,400,000	91.39	26,261 00				
Cincinnati, Indianapolis & Western Railway Co.	15,018,753	15,018,753	360.85	41,620 00				
Cincinnati, Richmond & Ft. Wayne Railroad Co.	4,104,786	4,104,786	85.83	47,825 00	3,850 00	2,127,278 77	2,123,428 77	
Evansville Belt Railway Co. (No funded debt)								
Fort Wayne & Jackson Railroad Co.	2,727,548	2,727,548	97.53	27,966 25				
Indianapolis & Louisville Railway Co.	1,750,000	1,750,000	59.70	29,313 00				
Indiana Stone Railroad Co.	268,000	268,000	18.26	14,676 00				
Pittsburgh, Ft. Wayne & Chicago Railway Co.	76,818,885	76,818,885	470.53	163,258 00	14,434,880 95	8,407,836 56	6,027,044 39	
South Chicago & Southern Railroad Co. (No funded debt)								
Total.....	\$226,085,422	\$223,357,874	3,991.82	\$743,031 25	\$18,091,881 74	\$24,940,865 87	\$12,326,562 96	

Peoria & Eastern Railway Co.....	1,142,194 17	402,417 41	22,989 85	1,567,601 43	10,806 87	1,578,408 30	3,508,587 59
Pennsylvania Co.....	6,043,895 70	2,678,220 63	182,528 55	8,904,644 88	62,703 60	8,967,348 48	51,042,440 06
Pere Marquette Railroad Co.....	403,696 31	290,441 71	817 17	649,955 19	1,789 30	696,712 58	15,986,808 12
Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.	14,089,952 50	5,561,950 21	241,279 73	19,893,182 44	133,648 32	20,026,830 76	38,924,315 51
St. Joseph Valley Railway Co.....	15,562 57	26,252 28	323 45	42,138 30	666 46	42,804 76	42,804 76
Southern Railway Co.....	1,271,555 90	482,719 04	35,123 72	1,789,398 66	13,059 63	1,802,458 29	60,345,062 64
Southern Indiana Railway Co*.....	751,069 74	124,543 91	1,889 36	877,503 01	1,180 84	878,683 85
Syracuse & Milford Railway Co. (Not reported)
Toledo, St. Louis & Western Railroad Co.....	1,172,118 03	173,573 65	80,684 90	1,426,376 58	9,140 86	1,435,517 44	3,777,677 48
Vandalia Railroad Co.....	3,983,559 95	1,594,150 23	5,910 28	5,673,600 46	39,929 26	5,713,529 72	10,422,411 41
Wabash Railroad Co.....	2,866,876 76	1,291,134 66	60,869 82	4,218,881 24	30,628 88	4,249,510 12	29,884,037 40
Total.....	\$75,454,628 56	\$29,414,971 56	\$1,704,381 36	\$106,527,026 48	\$769,119 27	\$107,344,896 84	\$526,944,575 09
SWITCHING ROADS.							
Baltimore & Ohio—Chicago Terminal Railroad Co.....	\$1,451,102 18
Bedford & Waller Railroad Co. (Not reported)	2,925 96
Chicago & South Bend Railroad.....	\$18,480 00	\$18,480 00	\$18,480 00	18,480 00
Elwood, Anderson & Lapel Railroad Co.....	20,201 86	20,201 86	20,201 86	20,201 86
Indiana, Als Union Railway Co.....	492,542 49	492,542 49	\$2,483 94	495,026 43	495,026 43
Indiana Harbor Belt Railroad Co.....	837,432 00	837,432 00	186 59	836,111 00	2,427,978 00
Muncie & Western Railroad Co.....
Muncie Belt Railway Co.....	12,107 50	12,107 50	12,107 50	12,107 50
Total.....	\$1,380,783 85	\$1,380,783 85	\$2,670 53	\$1,401,926 79	\$4,427,821 93

STEAM ROADS—TABLE No. 5—Continued.

	STATE OF INDIANA.						ENTIRE LINE.
	From Freight.	From Passenger Service, Train Revenue.	Switching and Other Special Train Service.	Total Revenue, From Transportation.	From Operation Other Than Transportation.	Total Operating Revenue, State of Indiana.	
OPERATING ROADS.							
NON-OPERATING ROADS.							
Baltimore & Ohio & Chicago Railroad Co.	\$2,892,293 86	\$630,972 61	\$23,451 64	\$3,554,718 11	\$11,930 01	\$3,566,648 12	\$6,904,080 81
Baltimore & Ohio Southwestern Railroad Co.	1,999,791 11	991,465 21	60,258 35	3,051,514 67	45,146 71	3,096,661 38	12,047,332 59
Bedford Belt Railway Co. (Not reported)
Bloomington Southern Railroad Co. (Not reported)
Chicago, Indiana & Eastern Ry. Co. (Not reported)
Chicago, Lake Shore & Eastern Railway Co. (Lease)
Chicago, St. Louis & New Orleans Railroad Co. (Not reported)
Cincinnati, Findlay & Ft. Wayne Ry. Co. (Not reported)
Cincinnati, Indianapolis & Western Railway Co. (Not reported)
Cincinnati, Richmond & Ft. Wayne Railroad Co. (Not reported)
Evansville Belt Railway Co. (Not reported)
Ft. Wayne & Jackson Railroad Co. (Not reported)
Indianapolis & Louisville Railway Co. (Not reported)
Indiana Stone Railroad Co. (Not reported)
Pittsburgh, Ft. Wayne & Chicago Railway Co. (From Lessor)	5,160,902 46
South Chicago & Southern Railroad Co. (Not reported)
Total.....	\$4,892,084 97	\$1,622,437 82	\$83,709 99	\$6,606,232 78	\$57,076 72	\$6,663,309 50	\$25,152,261 53

*Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southern Railway Company.

STEAM ROADS—TABLE No. 5—Continued.

OPERATING ROADS.	Operating Expenses	Net Revenue.	Deficit.	OUTSIDE OPERATION.		Taxes.	Total Other Income.	Gross Corporate Income.	Gross Corporate Loss.	Deductions From Gross Corporate Income.
				Net Revenue.	Deficit.					
Baltimore & Ohio R. R. Co.										
Bedford Stone Ry. Co.	\$12,187 75	\$22,766 62				\$3,785 42	\$466 20	\$19,447 40		\$1 00
Central Indiana Ry. Co.	196,175 36		\$22,252 39			18,171 72	397 18		\$40,026 93	76,212 68
Chesapeake & Ohio Ry. Co. of Indiana	1,676,098 25		143,359 38	\$82 02		45,480 00	146,502 00		187,292 24	474,203 68
Chicago & Eastern Illinois R. R. Co.	8,344,463 43	3,936,880 84				338,128 91	727,024 29	4,311,460 95		4,292,433 34
Chicago & Erie Ry. Co.	4,335,855 99	957,906 62				145,713 86	87,202 57	899,385 33		1,398,149 97
Chicago & Wabash Valley Ry. Co.	26,851 27		15,035 32			2,250 96			17,286 28	
Chicago, Indiana & South- ern Ry. Co.	2,877,379 76	809,376 18			1,271 74	164,093 10	629,093 13	1,273,104 80		1,350,251 08
Chicago, Indianapolis & Louisville Ry. Co.	4,257,162 67	1,929,715 95				268,445 08	204,026 86	1,865,297 73		1,152,973 00
Chicago, Terre Haute & Southeastern Ry. Co.	587,606 34	244,634 13				52,200 00	89,510 88	281,569 90		129,437 76
Cincinnati, Bluffton & Chicago R. R. Co.	63,448 71	4,542 14			375 11	7,249 92			2,707 78	
Cincinnati, Hamilton & Dayton Ry. Co.	7,398,588 60	2,171,693 09				378,976 73	114,771 73	1,907,488 09		2,568,534 00
Cleveland, Cincinnati, Chicago & St. Louis Ry. Co.	23,818,520 32	6,849,101 58				973,548 00	939,777 38	6,732,714 10		6,457,134 25
Elgin, Joliet & Eastern Ry. Co.	5,287,634 29	2,766,055 61				219,202 17	62,381 80	2,609,235 24		2,122,993 33
Evansville & Terre Haute R. R. Co. and Evans- ville & Indianapolis R. R. Co.	1,754,034 01	845,031 00			8,495 36	199,188 00	163,119 82	880,467 46		596,809 06
Ferdinand R. R. Co.	11,032 79	1,884 82				533 24		1,348 58		1,278 52
Grand Rapids & Indiana Ry. Co.	4,062,734 14	1,008,393 51			3,899 23	286,494 27	53,919 89	771,919 90		734,579 77
Grand Trunk Western Ry. Co.	4,739,850 08	1,599,262 48			14,360 45	379,621 01	302,140 79	1,507,421 81		1,682,008 68

STEAM ROADS--TABLE No. 5--Continued.

OPERATING ROADS.	Operating Expenses	Net Revenue.	Deficit.	OUTSIDE OPERATION.		Taxes.	Total Other Income.	Gross Corporate Income.	Gross Corporate Loss.	Deductions From Gross Corporate Income.
				Net Revenue.	Deficit.					
Illinois Central R. R. Co.	\$45,856,228 13	\$1,7120,803 36			\$56,464 20	\$2,671,200 22	\$5,338,844 85	\$19,741,893 75		\$4,565,561 05
Indianapolis Southern R. R. Co.	901,628 57	210,076 46				49,558 80	15,571 79	176,089 45		515,314 50
Lake Erie & Western R. R. Co.	4,457,226 39	1,009,385 53				225,998 15	115,022 86	898,410 24		1,135,879 99
Lake Shore & Michigan Southern Ry. Co.	34,721,326 05	13,730,799 56			60,087 25	1,720,182 33	11,110,953 17	23,061,483 15		10,025,798 44
Louisville & Nashville R. R. Co.	38,479,822 61	15,513,918 17		40,463 41		1,789,718 27	2,647,883 46	16,412,486 77		7,857,154 06
Louisville, New Albany & Covington R. R. Co.	13,616 37	13,832 26				1,597 42		12,234 84		9,857 03
Michigan Central R. R. Co.	22,329,787 00	7,437,039 00			40,732 00	1,355,020 00	1,302,164 00	7,343,451 00		6,639,853 00
New Jersey, Indiana & Illinois R. R. Co.	24,236 22	21,064 79				2,277 58	312 42	22,099 63		14,203 55
New York, Chicago & St. Louis R. R. Co.	8,186,963 98	2,994,191 90			20,523 05	354,717 68	264,834 00	2,883,788 17		2,031,428 24
Penn. & Delaware Ry. Co.	2,722,919 95	775,067 61			61,489 30	114,822 92	29,081 63	689,871 35		914,180 24
Pennsylvania Co.	34,849,839 79	16,192,580 27			75,600 74	2,241,281 61	13,187,422 80	27,077,232 16		26,419,381 00
Pere Marquette R. R. Co.	12,838,410 21	3,128,397 91				664,770 22	164,132 55	2,552,159 50		4,365,920 53
Pittsburgh, Cincinnati, Chicago & St. Louis Ry. Co.	28,039,376 35	10,884,939 16			10,476 45	1,628,654 82	759,223 53	10,005,031 42		9,407,799 67
St. Joseph Valley Ry. Co.	38,266 31	4,328 45				3,207 71		1,550 71		
Southern Ry. Co.	40,926,790 08	19,418,272 35			42,027 75	2,212,967 87	3,775,839 86	20,933,116 50		15,335,158 72
Southern Indiana Ry. Co.	631,982 74	226,701 11			3 32	41,571 00	127,908 35	313,098 78		34,568 15
Syracuse & M. Road Ry. Co. (Not reported)										
Tokelo St. Louis & West ern R. R. Co.	2,008,013 50	1,169,663 98				171,032 18	235,861 49	1,234,473 29		1,110,976 15
Vandalia R. R. Co.	8,061,216 11	2,361,224 87				332,694 89	126,203 44	2,154,733 52		1,616,941 99
Wabash R. R. Co.	22,466,183 11	7,517,851 29			23,894 65	930,822 51	706,578 74	7,279,665 87		7,030,326 00
Total	\$75,553,477 36	\$112,901,198 81	\$180,647 09	\$40,485 43	\$517,529 64	\$19,985,388 60	\$13,439,133 46	\$165,849,521 39	\$247,313 23	\$127,576,904 43

SWITCHING ROADS.									
Baltimore & Ohio—Chicago Terminal R. R. Co.	\$1,226,656 52	\$224,445 62	\$10,470 74	\$220,741 50	\$831,218 41	\$845,393 31	\$1,332,892 41		
Bedford & Walther R. R. Co.	6,652 09			1,132 14					
Chicago & South Bend R. R.	15,691 04	2,788 96			565 85	3,354 81	1,154 95		
Elwood, Anderson & La-vel R. R. Co.	17,318 00	2,883 86		1,761 00		1,122 86	120 03		
Indianapolis Union Ry. Co.	495,026 43	495,026 43		104,560 58	445,147 14	340,586 56	262,511 01		
Indiana Harbor Belt R. R. Co.	2,091,763 00	426,215 00	195 60	65,065 00	281,325 00	662,005 00	764,874 00		
Muncie & Western R. R. Co.									
Muncie Belt Ry. Co.	8,872 07	3,235 43		1,599 27	5,355 11	7,326 03	2,400 39		
Total.....	\$3,771,979 15	\$1,154,595 30	\$10,666 34	\$304,599 49	\$1,563,611 51	\$1,859,788 57	\$2,353,452 40		

STEAM ROADS—TABLE No. 5—Continued.

OPERATING ROADS.	Operating Expenses.	Net Revenue.	Deficit.	OUTSIDE OPERATION.		Taxes.	Total Other Income.	Gross Corporate Income.	Gross Corporate Loss.	Deductions From Gross Corporate Income.
				Net Revenue.	Deficit.					
NON-OPERATING ROADS.										
Baltimore & Ohio & Chi- cago R. R. Co.	\$4,881,337 78	\$2,022,742 03			\$8,695 81	\$239,391 40	\$12,149 82	\$1,786,804 64		\$772,047 82
Baltimore & Ohio South- western R. R. Co.	9,298,351 85	2,748,980 74			21,005 01	501,654 50	179,081 37	2,405,402 60		1,851,775 44
Bedford Belt Ry. Co.										
Bloomington Southern R. R. Co.										
Chicago, Indiana & East- ern Ry. Co.								2,929 56		2,929 56
Chicago, Lake Shore & Eastern Ry. Co.										
Chicago, St. Louis & New Orleans R. R. Co.							1,200,008 32	1,200,008 32		405,006 75
Cincinnati, Findlay & Ft. Wayne Ry. Co.								2,447,434 70		2,047,434 70
Cincinnati, Indianapolis & Western Ry. Co.							100 00	46,100 00		46,000 00
Cincinnati, Richmond & Ft. Wayne R. R. Co.										
Ft. Wayne Belt Ry. Co.						4,652 00		29,864 91		227,045 13
Ft. Wayne & Jackson R. R. Co.								32,546 80		14,126 70
Indianapolis & Louisville Ry. Co.										
Indiana Stone R. R. Co.										
Pittsburgh, Ft. Wayne & Chicago Ry. Co.	22,825 96					774 25	133,280 46	5,027,022 00		4,898,383 81
South Chicago & Southern R. R. Co.								74,815 76		72,257 48
Total	\$14,202,542 69	\$4,771,722 77			\$29,700 82	\$746,472 15	\$1,524,619 97	\$13,053,527 29		\$10,337,009 39

*Prior to January 1, 1911, known as The Southern Indiana Railway Company.

*Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Railway Company.

STEAM ROADS—TABLE No. 5—Continued.

INCOME—OPERATING REVENUE—FROM TRANSPORTATION AND OTHERWISE.

	BALANCE FOR YEAR TO—		Debit Deductions For Year.	Credit Additions For Year.	BALANCE JUNE 30, 1910.		Balance June 30, 1911.
	Credit Profit and Loss.	Debit Profit and Loss.			Credit.	Debit.	
Baltimore & Ohio Railroad Co.	\$19,446 40		\$21,430 99		\$21,430 99		\$19,446 40
Bedford Stone Railway Co.		\$116,239 61	105 91	\$111 05			1,155,207 74
Central Indiana Railway Co.		601,495 92				\$1,038,973 27	601,495 92
Chesapeake & Ohio Railway Co. of Indiana			126,278 24	129,226 55			813,871 16
Chicago & Eastern Illinois Railroad Co.	19,027 61		23,525 96	510,206 05	\$10,922 85		
Chicago & Erie Railroad Co.		486,680 09				47,129 95	64,416 23
Chicago & Wabash Valley Railway Co.		17,286 28	551,587 42	22,589 79	423,984 13		212,159 78
Chicago, Indiana & Southern Railroad Co.		77,146 28	1,983,400 00	1,379,624 60	5,354,712 08	108,549 33	5,463,261 41
Chicago, Indianapolis & Louisville Railway Co.	712,324 73						
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Railway Co.)	152,132 14		108 00	311 82	152,132 14		152,335 96
Cincinnati, Bluffton & Chicago Railroad Co.		2,707 78				2,707 78	
Cincinnati, Hamilton & Dayton Railroad Co.		661,045 71	11,866,109 92	398,296 11		10,582,324 86	22,711,184 58
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	275,579 94		949,833 54	86,629 61	2,446,821 89		1,859,197 90
Elgin, Joliet & Eastern Railway Co.	86,241 91		462,965 68	518 25	1,683,154 00		1,306,948 48
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	283,658 40		339,268 78	19,087 88	1,300,700 48		1,264,177 98
Ferdinand Railroad Co.	70 60		70 60				
Grand Rapids & Indiana Railway Co.	37,340 13		93,790 45		240,075 52		183,635 20
Grand Trunk Western Railway Co.		177,140 52			24,026 61		183,113 91
Illinois Central Railroad Co.	3,361,209 97		1,228,072 05	1,817,183 59	2,833,643 18	1,589,410 18	6,783,964 69
Indianapolis Southern Railroad Co.		339,225 05	79 73	17,893 44			1,910,821 52
Lake Erie & Western Railroad Co.		237,469 75	3,181 05	1,570 52	13,903 67		225,176 61
Lake Shore & Michigan Southern Railway Co.	3,436,386 71		3,934,980 09	1,613,980 31	28,546,490 66		29,661,877 59
Louisville & Nashville Railroad Co.	8,555,332 71		5,313,854 73	542,609 30	27,462,794 03		31,246,881 31
Louisville, New Albany & Corydon Railroad Co.	423 66				3,445 85		
Michigan Central Railroad Co.		670,684 00	1,257,077 00		10,321,135 00		8,393,374 00
New Jersey, Indiana & Illinois Railroad Co.	7,896 08			105 05		12,642 49	4,641 36
New York, Chicago & St. Louis Railroad Co.	882,359 93		711,153 28	98,000 00	2,382,593 33		2,621,799 98
Peoria & Eastern Railway Co.		224,609 07	59 99	258 97	342,457 37		118,047 28

STEAM ROADS—TABLE No. 5—Continued.

	BALANCE FOR YEAR TO—		Debit Deductions For Year.	Credit Additions For Year.	BALANCE JUNE 30, 1910.		Balance June 30, 1911.
	Credit Profit and Loss.	Debit Profit and Loss.			Credit.	Debit.	
OPERATING ROADS.							
Pennsylvania Co.	\$657,851 16		\$159,050 85	\$437,010 33	\$8,213,135 67		\$9,148,946 31
Pere Marquette Railroad Co.		\$1,813,761 63	818,076 43	8,581 35		\$156,456 56	2,780,312 67
Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.	600,231 55		878,596 81	1,025,296 15	4,207,079 26		4,953,980 35
Southern Railway Co.	1,330 71				40		1,330 71
St. Joseph Valley Railway Co.	5,403,357 78		3,000,000 03	356,017 39	8,685,959 91		11,445,965 08
Southern Indiana Railway Co. (Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Railway Co.)	278,530 63				926,647 31		1,205,177 94
Syracuse & Milford Railway Co. (Not reported)	72,797 14		479,810 42	296,081 13	3,075,018 70		2,931,289 41
Tulsa, St. Louis & Western Railroad Co.	152,629 05		468,759 13		1,039,658 89		711,498 79
Valdalia Railroad Co.		410,860 13	3,691,788 95	215,928 19		2,930,212 91	6,126,933 80
Wabash Railroad Co.							
Total	\$2,460,759 12	\$5,896,351 22	\$5,766,326 00	\$8,977,117 45	\$110,502,903 92	\$16,468,407 33	\$156,295,462 05
SWITCHING ROADS.							
Baltimore & Ohio Chicago Terminal Railroad Co.		\$187,499 10	\$517,561 34	\$122,360 13		\$106,685 36	\$891,886 57
Bethlehem & Walling Railroad Co. (Not reported)			1,154 95	3,354 81	\$3,820 76		6,020 62
Chicago & South Bend Railroad Co.	82,199 86				55,653 08		52,655 94
Elwood, Anderson & Lenoir Railroad Co.		2,997 14			415,793 51		126,946 11
Indianapolis Union Railway Co.	78,075 52		387,821 43	20,898 51		1,587,693 00	1,690,562 00
Indiana Harbor Belt Railroad Co.		102,869 00					
Miner & Western Railroad Co.					47,524 89		52,450 92
Miner Belt Railroad Co.	4,426 03						
Total	\$85,291 41	\$393,365 24	\$906,557 72	\$146,613 45	\$522,792 24	\$1,694,578 36	\$2,430,522 16

NON-OPERATING ROADS.

Baltimore & Ohio & Chicago Railroad Co.	\$1,014,756 82			\$1,014,756 82			\$80,502 94
Baltimore & Ohio Southwestern Railroad Co.	553,627 16			553,627 16			
Bedford Belt Railway Co. (Not reported)							
Bloomington Southern Railroad Co. (Not reported)							
Chicago, Indiana & Eastern Railway Co.		\$55,638 71		272 18		\$277,400 31	333,040 70
Chicago, Lake Shore & Eastern Railway Co.	795,001 57			492,419 37			806,499 18
Chicago, St. Louis & New Orleans Railroad Co. (Not reported)							
Cincinnati, Indianapolis & Western Railway Co.	100 00			200 00			250 00
Cincinnati, Richmond & Ft. Wayne Railway Co.	5,000 00					15,000 00	20,000 00
Cincinnati, Richmond & Ft. Wayne Railroad Co.	13,768 10	197,180 22				1,789,870 89	1,987,051 11
Evansville Belt Railway Co.				3,021 59			102,121 59
Fort Wayne & Jackson Railroad Co. (Not reported)							
Indianapolis & Louisville Railway Co.	7,031 06						16,416 95
Indiana Stone Railroad Co.	921 78						46,275 75
Pittsburgh, Ft. Wayne & Chicago Railway Co. (Not reported)							
South Chicago & Southern Railroad Co.	2,558 28			16 50			175,978 72
Total	\$2,392,764 77	\$252,818 93	\$544 30	\$2,064,313 62	\$1,408,778 50	\$2,067,271 20	\$3,608,136 94

STEAM ROADS—TABLE No. 6.

TRAFFIC AND MILEAGE STATISTICS.

OPERATING ROADS.	ENTIRE LINE.			STATE OF INDIANA.		
	Passenger Service. Train Revenue Per Mile of Road.	Total Freight Revenue Per Mile of Road.	Total Operating Revenue Per Mile of Road.	Passenger Service. Train Revenue Per Mile of Road.	Total Freight Revenue Per Mile of Road.	Total Operating Revenue Per Mile of Road.
Baltimore & Ohio Railroad Co.....	\$4,171 36	\$10,860 30	\$15,425 46	\$4,208 23	\$12,626 69	\$17,198 30
Bedford Stone Railroad Co.....		11,775 10	11,775 10		11,775 10	11,775 10
Central Indiana Railway Co.....	244 48	1,102 47	1,369 04	244 48	1,102 47	1,369 04
Chesapeake & Ohio Railway Co. of Indiana.....	1,122 38	4,197 95	5,385 59	1,122 04	4,309 26	5,435 07
Chicago & Eastern Illinois Railroad Co.....	2,773 08	9,756 65	12,718 21	1,430 22	5,914 09	7,444 28
Chicago & Erie Railroad Co.....	4,319 57	14,920 47	19,638 53	4,319 57	14,920 47	19,638 53
Chicago & Wabash Valley Railroad Co.....	8 42	311 00	319 42	8 42	311 00	319 42
Chicago, Indiana & Southern Railroad Co.....	1,009 51	10,306 47	10,807 80	1,009 51	10,306 47	10,807 80
Chicago, Indianapolis & Louisville Railroad Co.....	3,226 59	6,586 00	10,040 54	3,212 57	6,579 65	10,041 03
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Railway Co.).....	513 86	2,038 70	2,370 58	513 86	2,206 14	2,688 92
Cincinnati, Bluffton & Chicago Railroad Co.....	643 67	1,370 24	1,940 91	643 67	597 24	1,240 91
Cincinnati, Hamilton & Dayton Railroad Co.....	2,111 42	6,804 70	9,432 57	2,440 56	5,902 95	8,469 94
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.....	4,966 56	10,075 82	15,471 43	4,966 61	10,076 03	15,471 59
Ellettsville, Joliet & Eastern Railway Co.....	36	9,149 88	9,684 80		6,146 54	6,464 82
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.....	2,753 24	5,233 74	8,391 39	2,753 24	5,233 74	8,391 39
Ferdinand Railroad Co.....	374 57	1,371 92	1,749 95	374 57	1,371 92	1,749 95
Grand Rapids & Indiana Railway Co.....	3,282 05	5,158 46	8,634 35	3,016 49	6,006 04	9,231 15
Grand Trunk Western Railway Co.....	6,397 01	11,563 36	18,265 70	5,740 07	11,599 98	17,424 63
Illinois Central Railroad Co.....	3,465 25	8,915 14	13,362 57	2,781 77	6,219 91	9,001 68
Indianapolis Southern Railroad Co.....	1,554 56	4,584 33	6,201 64	1,508 71	4,592 10	6,225 60
Lake Erie & Western Railroad Co.....	1,232 37	4,820 27	6,169 43	1,232 37	4,820 27	6,169 43
Lake Shore & Michigan Southern Railway Co.....	10,753 66	19,150 43	29,138 00	12,923 20	22,008 83	33,843 08
Louisville & Nashville Railroad Co.....	3,086 81	8,495 59	11,741 88	5,388 38	12,621 14	19,020 03
Louisville, New Albany & Corydon Railroad Co.....	1,623 44	1,941 32	3,564 76	1,623 44	1,941 32	3,564 76
Michigan Central Railroad Co.....	5,346 41	10,657 62	16,493 42	8,698 24	15,657 31	25,494 52
New Jersey, Indiana & Illinois Railroad Co.....	109 04	3,863 86	4,079 48	109 04	3,863 86	4,079 48
New York, Chicago & St. Louis Railroad Co.....	3,249 02	16,302 70	19,912 66	3,249 02	16,303 31	19,913 41
Poria & Eastern Railway Co.....	2,544 07	7,220 91	9,978 03	2,544 05	7,220 85	9,978 56

Pennsylvania Co.	7,854 60	27,105 98	36,049 98	16,633 88	37,537 39	55,694 36
Pere Marquette Railroad Co.	2,059 90	4,614 07	6,851 88	3,424 21	4,759 45	8,214 01
Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.	7,474 69	18,043 40	26,521 89	7,504 99	19,012 21	27,023 12
St. Joseph Valley Railway Co.	607 69	360 24	990 85	607 69	360 24	990 85
Southern Railway Co.	2,774 25	5,609 09	8,569 37	2,015 53	5,309 21	7,525 92
Southern Indiana Railway Co. (Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Railway Co.)	602 27	3,171 35	3,710 19	602 27	3,171 35	3,710 19
Syracuse & Milford Railway Co. (Not reported)	1,382 50	6,843 54	8,381 43	1,383 09	6,846 48	8,385 03
Toledo, St. Louis & Western Railroad Co.	3,961 69	8,369 55	12,598 60	3,170 42	7,922 40	11,362 97
Vandalia Railroad Co.	3,610 80	8,017 53	11,884 21	3,610 80	8,017 53	11,884 21
Wabash Railroad Co.						
Total	\$101,311 15	\$289,897 28	\$398,922 24	\$113,835 86	\$301,702 80	\$424,481 31
NON-OPERATING ROADS.						
Baltimore & Ohio & Chicago Railroad Co.	\$4,356 09	\$19,721 40	\$24,319 59	\$4,356 83	\$19,721 08	\$24,319 16
Baltimore & Ohio Southwestern Railroad Co.	4,203 66	8,363 63	13,007 69	4,117 72	8,305 47	12,860 96
Total	\$8,559 75	\$28,085 03	\$37,327 28	\$8,474 55	\$28,026 55	\$37,180 12

STEAM ROADS—TABLE No. 7.

OPERATING EXPENSES—ENTIRE LINE.

OPERATING ROADS.	Ratio of Operating Expenses to Operating Revenues, Per Cent., Entire Line.	Maintenance of Way and Structures.	Ratio to Total Operating Expenses, Per Cent.	Maintenance of Equipment.	Ratio to Total Operating Expenses, Per Cent.	Traffic Expenses.	Ratio to Total Operating Expenses, Per Cent.	Transportation Expenses.	Ratio to Total Operating Expenses, Per Cent.	General Expenses.	Ratio to Total Operating Expenses, Per Cent.	Total Operating Expenses.
Baltimore & Ohio R. Co.	75.05	\$2,051,112.34	13.97	\$4,728,285.59	25.28	\$552,048.01	3.76	\$7,880,726.82	52.63	\$474,560.07	3.23	\$14,680,732.84
Bell & Stone R. Co.	24.68	1,432.21	33.45	4,317.14	33.06	3,215.47	26.82	3,215.47	26.82	531.33	3.74	12,087.75
Central Indiana R. Co.	112.79	48,626.99	24.79	45,164.65	23.92	7,114.29	3.64	82,335.11	41.37	12,905.01	6.58	136,173.36
Chesapeake & Ohio R. Co. of Indiana	109.35	342,675.85	20.45	351,020.76	21.12	66,805.94	3.98	852,167.88	50.83	60,417.82	3.60	1,676,098.25
Chicago & Eastern Illi- nois R. Co.	67.94	1,152,564.58	13.81	1,977,032.36	23.69	279,784.72	3.35	4,538,010.86	54.29	336,985.91	4.76	8,344,463.43
Chicago & Erie R. Co.	81.99	554,837.11	12.81	1,024,741.28	23.62	239,663.47	5.53	2,402,732.33	55.40	114,881.80	2.64	4,335,855.99
Chicago & Wabash Val- ley R. Co.	227.25	13,052.69	48.61	2,696.01	10.04	403.94	1.51	8,657.56	32.24	2,039.07	7.60	26,851.27
Chicago, Indiana & Southern R. R. Co.	78.05	517,935.15	18.00	741,008.44	23.75	101,518.39	3.53	1,411,062.71	19.04	105,824.87	3.68	2,877,379.76
Chicago Indianapolis & Louisville R. Co.	68.81	799,007.53	18.77	878,721.75	20.61	201,556.08	4.73	2,193,183.83	51.52	181,693.48	4.34	4,257,162.67
Chicago, Terre Haute & Southern R. Co.	70.61	89,473.65	15.23	162,618.31	27.68	17,297.65	2.94	271,456.75	46.28	46,259.98	7.87	587,606.34
Cincinnati, Hamilton & Chicago R. R. Co.	94.59	13,225.99	20.80	8,403.74	13.20	1,309.77	2.06	33,815.16	53.29	6,694.14	10.55	63,448.71
Cleveland, Hamilton & Dayton R. Co.	77.31	824,461.91	11.27	1,702,726.91	23.02	268,323.49	3.63	4,342,801.63	58.67	252,184.66	3.41	7,398,588.60
Cleveland, Cincinnati, Chicago & St. Louis R. Co.	77.67	3,871,695.08	16.25	5,292,012.04	22.22	970,817.65	4.80	12,983,568.45	54.51	700,427.10	2.94	23,818,520.32
Elgin, Joliet & Eastern R. Co.	65.65	631,773.57	17.62	1,541,015.62	29.14	48,944.47	.93	2,573,965.89	48.08	191,934.74	3.63	5,287,634.29

STEAM ROADS—TABLE No. 7—Continued.

SWITCHING ROADS	Ratio of Operating Expenses to Operating Revenues, Per Cent. Entire Line.	Maintenance of Way and Structures.	Ratio to Total Operating Expenses, Per Cent.	Maintenance of Equipment.	Ratio to Total Operating Expenses, Per Cent.	Traffic Expenses.	Ratio to Total Operating Expenses, Per Cent.	Transportation Expenses.	Ratio to Total Operating Expenses, Per Cent.	General Expenses.	Ratio to Total Operating Expenses, Per Cent.	Total Operating Expenses.
Baltimore & Ohio—Chi- cago Terminal R. R.	84.83	\$202,270 72	16.48	\$221,002 61	18.02	\$9,066 69	74	\$744,586 70	60.95	\$46,719 80	3.81	\$1,226,656 82
Baltimore & Western R. R. Co.		1,190 51		327 87				1,735 04		2,603 67		6,652 09
Chicago & South Bend R. R.		5,540 31	35.30	768 86	4.90			8,143 15	51.90	1,238 72	7.90	15,691 04
Elwood, Anderson & Lapel R. R. Co.	85.72	3,564 10	20.58	4,757 39	27.47			6,199 46	35.80	2,797 05	16.15	17,318 50
Indianapolis Union Ry. Co.		91,028 13	18.38	60,710 94	12.27			329,869 27	66.64	13,418 09	2.71	495,026 43
Indiana Harbor Belt R. R. Co.	82.45	341,900 00	17.08	304,807 00	15.23	32,214 00	1.61	1,251,962 00	62.54	70,890 00	3.54	2,001,763 00
Muncie & Western R. R. Co.	73.28	3,056 23	34.45	317 51	3.58	36 80	.41	4,780 28	53.88	681 25	7.68	8,872 07
Muncie Belt Ry. Co.												
Total	81.57	\$747,550 00		\$592,692 18		\$41,317 49		\$2,347,275 90		\$138,348 58		\$3,771,979 95
NON-OPERATING ROADS.												
Baltimore & Ohio & Chicago R. R. Co.	70.70	\$760,043 08	15.57	\$1,410,417 00	28.90	\$145,166 27	2.97	\$2,419,106 57	49.56	\$146,605 86	3.00	\$4,881,338 78
Baltimore & Ohio South- western R. R. Co.	77.18	1,225,565 69	13.18	2,198,559 71	23.64	385,692 63	4.15	5,177,479 70	55.68	311,058 12	3.35	9,298,351 85
Total	73.94	\$1,985,608 77		\$3,608,976 71		\$530,858 90		\$7,596,586 27		\$457,663 98		\$14,179,690 63

*Prior to January 1, 1911, known as The Southern Indiana Railway Company.
†Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Railway Company.

STEAM ROADS—TABLE No. 7—Continued.

OPERATING EXPENSES—STATE OF INDIANA.

OPERATING ROADS.	Ratio of Operating Expenses to Operating Revenues, Per Cent., State of Indiana.	Maintenance of Wav and Structures.	Ratio to Total Operating Expenses, Per Cent.	Maintenance of Equipment.	Ratio to Total Operating Expenses, Per Cent.	Traffic Expenses.	Ratio to Total Operating Expenses, Per Cent.	Transportation Expenses.	Ratio to Total Operating Expenses, Per Cent.	General Expenses.	Ratio to Total Operating Expenses, Per Cent.	Total Operating Expenses.
Baltimore & Ohio R. Co.	73.82	\$708,304 70	14.40	\$1,295,340 29	26.33	\$174,475 48	3.55	\$2,585,076 61	52.55	\$155,921 39	3.17	\$4,919,118 47
Bedford Stone Ry. Co.	34.68	4,043 21	33.45	4,347 14	35.96	3,245 47	26.85	451 93	3.74	12,087 75
Central Indiana Ry. Co.	112.79	48,626 90	24.79	45,164 05	23.02	7,144 29	3.64	82,335 11	41.97	12,905 01	6.58	196,175 36
Chesapeake & Ohio Ry. Co. of Indiana.	107.35	298,902 38	21.54	294,134 29	21.86	54,046 01	4.01	659,496 60	49.01	48,155 94	3.58	1,345,735 22
Chicago & Eastern Illinois R. R. Co.	70.36	184,409 85	13.81	316,325 18	23.69	44,765 08	3.35	726,096 30	54.39	63,517 74	4.76	1,335,114 15
Chicago & Erie R. R. Co.	81.90	329,678 66	12.81	608,296 82	23.62	142,405 63	5.53	1,427,679 52	55.40	68,261 62	2.64	2,576,322 25
Chicago & Wabash Valley Ry. Co.	227.25	13,052 69	48.61	2,696 01	10.04	405 94	1.51	8,657 56	32.24	2,039 07	7.60	26,850 27
Chicago, Indiana & Southern R. R. Co.	48.74	289,505 03	16.11	486,138 59	27.05	69,937 17	3.89	878,560 43	48.89	72,903 81	4.06	1,797,045 03
Chicago, Indianapolis & Louisville Ry. Co.	68.81	764,889 90	18.77	841,200 32	20.66	192,949 63	4.73	2,099,534 76	51.50	176,807 06	4.34	4,075,351 67
Chicago, Terre Haute & Southeastern Ry. Co.*	(Report ed no data).
Cincinnati, Bluffton & Chicago R. R. Co.	93.30	13,225 90	20.08	8,403 74	13.21	1,309 77	2.06	33,815 16	53.29	6,694 14	10.55	63,448 70
Cincinnati, Hamilton & Dayton Ry. Co.	80.12	159,683 97	13.49	273,123 70	23.06	51,924 41	4.38	652,652 83	55.12	46,812 06	3.95	1,184,196 97
Cleveland, Cincinnati, Chicago & St. Louis Ry. Co.	77.67	1,405,480 49	16.25	2,044,092 57	22.22	374,988 03	4.08	5,015,033 15	54.51	270,546 97	2.94	9,200,141 66

STEAM ROADS—TABLE No. 7—Continued.

OPERATING ROADS.	Ratio of Operating Expenses to Operating Revenues, Per Cent., State of Indiana.	Maintenance of Way and Structures.	Ratio to Total Operating Expenses, Per Cent.	Maintenance of Equipment.	Ratio to Total Operating Expenses, Per Cent.	Traffic Expenses.	Ratio to Total Operating Expenses Per Cent.	Transportation Expenses.	Ratio to Total Operating Expenses, Per Cent.	General Expenses.	Ratio to Total Operating Expenses, Per Cent.	Total Operating Expenses.	
Elgin, Joliet & Eastern Ry. Co.	66.64	\$221,259.79	17.27	\$367,796.58	28.70	\$11,603.28	.91	\$635,232.25	49.47	\$45,473.64	3.55	\$2,281,365.54	100
Evansville & Terre Haute R. R. Co. and Evans- ville & Indianapolis R. R. Co.	67.49	359,804.28	20.51	370,074.78	21.10	67,070.91	3.83	877,053.19	50.00	80,030.85	4.56	1,754,054.01	100
Frederick R. R. Co.	85.43	2,320.11	21.00	1,695.65	15.14	173.88	1.06	6,141.56	55.07	701.59	6.03	11,032.79	100
Grand Rapids & Indiana Ry. Co.	84.87	177,713.99	15.52	240,918.20	21.04	36,153.23	3.16	646,506.77	56.45	43,902.26	3.83	1,145,194.45	100
Grand Trunk Western Ry. Co.	78.39	152,194.73	13.81	231,161.37	20.07	51,456.58	4.67	636,962.04	57.80	40,240.42	3.65	1,102,015.14	100
Illinois Central R. R. Co.	76.39	56,139.87	20.84	37,460.04	13.92	5,829.84	2.17	164,289.81	61.04	5,461.90	2.03	269,172.46	100
Indianapolis Southern R. R. Co.	80.90	150,868.90	24.40	121,130.19	19.59	23,625.17	3.82	307,575.55	49.76	15,053.59	2.43	618,253.40	100
Lake Erie & Western R. R. Co.	81.54	271,500.37	20.51	544,577.36	23.68	91,080.20	3.96	1,116,424.49	48.55	75,900.67	3.30	2,299,483.09	100
Lake Shore & Michigan Southern Ry. Co.	72.01	1,385,960.01	21.28	1,389,528.05	21.34	213,539.86	3.28	1,345,135.83	51.36	178,544.36	2.74	6,512,708.11	100
Leasville & Nashville R. R. Co.	68.37	117,381.77	23.69	120,129.53	24.25	14,763.39	2.98	229,985.31	46.42	13,178.27	2.66	495,441.27	100
Lexington, New Albany & Corydon R. R. Co.	49.69	3,636.36	26.06	119.29	8.00			5,702.69	42.37	4,158.03	30.23	13,616.37	100
Michigan Central R. R. Co.	81.59	305,331.00	17.96	326,261.00	19.19	62,137.00	3.65	963,732.00	56.68	42,849.00	2.52	1,700,310.00	100
New Jersey, Indiana & Illinois R. R. Co.	50.18	4,651.34	19.19	1,848.18	7.63	407.49	1.68	10,506.10	43.35	6,823.11	28.15	24,236.22	100
New York, Chicago & St. Louis R. R. Co.	73.22	554,122.91	15.49	398,428.56	17.42	166,330.94	7.27	1,313,607.48	57.43	54,647.85	2.39	2,287,437.74	100
Penn. & Eastern Ry. Co.	77.89	225,675.40	18.36	265,600.70	21.60	31,682.51	2.58	674,018.45	54.82	32,481.64	2.64	1,229,458.70	100

Pennsylvania Co.	76.58	997,345 15	15.23	1,786,187 57	27.83	201,804 06	3.41	3,264,169 19	50.86	188,973 80	2.94	6,418,479 77	100
Pere Marquette R. R. Co.	55.87	65,666 95	16.87	91,328 68	23.46	16,529 42	4.25	201,797 45	51.84	13,938 75	3.58	389,261 25	100
Pittsburgh & Cincinnati Ry. Co.	72.82	2,403,420 61	16.48	3,835,157 50	26.30	433,739 20	2.97	7,497,917 24	51.42	413,090 04	2.83	14,583,324 59	100
St. Joseph Valley Ry. Co.	89.39	7,468 94	19.51	6,722 51	17.56	766 78	2.03	21,645 00	56.56	1,663 08	4.34	38,966 31	100
Southern Ry. Co.	86.49	292,384 01	18.75	315,727 51	20.25	57,948 45	3.72	832,719 20	53.42	60,000 52	3.86	1,539,001 69	100
Southern Indiana Ry. Co.	74.20	95,001 75	14.66	238,976 45	36.65	9,771 67	1.50	283,872 89	43.54	23,759 98	3.65	651,982 74	100
Syracuse & Milford Ry. Co.		4,341 68		20,982 27				8,604 79		1,005 65		34,934 39
Toledo, St. Louis & Western R. R. Co.	69.04	173,330 99	17.49	216,229 86	21.82	41,058 00	4.14	518,862 22	52.36	41,504 06	4.19	991,045 13	100
Vandalia R. R. Co.	74.42	768,320 13	18.08	1,021,127 95	24.02	151,704 00	3.57	2,185,067 14	51.39	124,978 41	2.94	4,251,797 63	100
Wabash R. R. Co.	74.84	516,152 34	16.23	692,297 04	21.77	130,687 89	4.11	1,713,931 48	53.89	127,402 49	4.00	3,180,471 24	100
Total	81.28	\$13,403,291 06		\$18,850,729 52		\$2,934,215 19		\$39,633,643 62		\$2,560,840 71		\$80,573,941 53
SWITCHING ROADS.													
Baltimore & Ohio—Chicago Terminal R. R. Co. (Not reported).													
Bedford & Wallner R. R. Co.		\$1,190 51		\$327 87				\$1,735 04		\$2,603 67		\$6,652 09	100
Chicago & South Bend R. R.		5,540 31	35.30	768 86	4.90			8,143 15	51.90	1,238 72	7.90	15,691 04	100
Elwood, Anderson & La- pel R. R. Co.	85.72	3,564 10	20.58	4,757 39	27.47			6,199 46	35.80	2,797 05	16.15	17,318 00	100
Indianapolis Union Ry. Co.		91,028 13	18.38	60,710 94	12.27			329,869 27	66.64	13,418 09	2.71	495,026 43	100
Indiana Harbor Belt R. R. Co.	89.21	140,521 00	18.40	149,015 00	19.52	\$11,243 00	1.47	438,183 00	57.37	24,741 00	3.24	763,738 00	100
Muncie & Western R. R. Co.	73.28	3,056 23	34.45	317 51	3.58	36 80	.41	4,780 28	53.88	681 25	7.68	8,872 07	100
Muncie Belt Ry. Co.													
Total	82.74	\$244,900 28		\$215,897 57		\$11,279 80		\$788,910 20		\$45,479 78		\$1,307,297 63

STEAM ROADS—TABLE No. 7—Continued.

NON-OPERATING ROADS.	Ratio of Operating Expenses to Operating Revenues, Per Cent., State of Indiana.	Maintenance of Way and Structures.	Ratio to Total Operating Expenses, Per Cent.	Maintenance of Equipment.	Ratio to Total Operating Expenses, Per Cent.	Traffic Expenses.	Ratio to Total Operating Expenses, Per Cent.	Transportation Expenses.	Ratio to Total Operating Expenses, Per Cent.	General Expenses.	Ratio to Total Operating Expenses, Per Cent.	Total Operating Expenses.
Baltimore & Ohio & Chi- cago R. R. Co.	70.70	\$392,638.26	15.57	\$728,621.42	28.90	\$74,992.90	2.97	\$1,249,710.46	49.56	\$75,736.59	3.00	\$2,521,699.63
Baltimore & Ohio South- western R. R. Co.	77.42	315,666.44	13.17	566,718.87	23.64	99,482.58	4.19	1,335,366.15	55.70	80,184.80	3.30	2,397,418.84
Total	74.06	\$708,304.70	\$1,295,340.29	\$174,475.48	\$2,585,076.61	\$155,921.39	\$4,919,118.47

*Prior to January 1, 1911, known as The Southern Indiana Railway Company.
 Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Railway Company.

STEAM ROADS—TABLE No. 8.

FREIGHT TRAFFIC MOVEMENT—STATE OF INDIANA.

(Company's Material Excluded.)

OPERATING ROADS.	Products of							Total Tonnage. State of Indiana.
	Agriculture. Whole Tons. A.	Animals. Whole Tons. B.	Mines. Whole Tons. C.	Forest. Whole Tons. D.	Manufac- tures. Whole Tons. E.	Merchan- dise. Whole Tons. F.	Miscellan- eous. Whole Tons. G.	
Baltimore & Ohio Railroad Co.	1,097,400	457,512	2,295,680	467,382	1,642,092	501,078	335,640	6,796,784
Bedford Stone Railway Co.		79,681	79,681	217	85			79,983
Central Indiana Railway Co.	41,896	3,272	148,405	16,355	86,548	1,802	4,878	303,156
Chesapeake & Ohio Railway Co. of Indiana	97,286	45,671	476,942	120,223	303,828	67,673	135,134	1,246,757
Chicago & Eastern Illinois Railroad Co.	171,379	29,674	1,294,837	212,761	209,958	65,080	7,222	1,990,911
Chicago & Erie Railroad Co. (Not reported)								
Chicago & Wabash Valley Railway Co. (Not reported)								
Chicago, Indiana & Southern Railroad Co.	588,527	414,395	4,418,647	307,600	895,306		61,818	19,640
Chicago, Indianapolis & Louisville Railway Co.	444,700	114,696	1,695,808	298,341	580,095	233,504	289,035	6,776,383
Chicago, Terre Haute & Northwestern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Railway Co.)	33,668	3,450	1,155,831	25,654	68,585	15,169	19,073	3,656,179
Cincinnati, Eliffon & Chicago Railroad Co. (Not reported)								
Chicago, Hamilton & Dayton Railway Co.	446,754	89,335	540,796	245,997	232,867	130,086	192,364	1,878,199
Cleveland, Cincinnati, Chicago & St. Louis	1,157,218	357,441	4,473,385	766,713	1,581,680	461,994	137,615	8,936,046
Elgin, Joliet & Eastern Railway Co.	427,258	39,212	7,493,560	221,012	4,261,376	11,348	1,157,260	13,611,026
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	368,597	91,932	2,379,509	202,995	320,697	172,464	24,928	3,549,122
Ferdinand Railroad Co. (Receivership)	2,775	103	2,095	6,118	3,714	2,471		17,276
Grand Rapids & Indiana Railway Co.	179,068	33,639	828,664	213,486	400,542	29,423	42,864	1,737,686
Grand Trunk Western Railway Co.	634,427	319,133	242,383	240,548	470,025	111,825	362,374	2,380,715
Illinois Central Railroad Co.	225,670	16,099	119,711	202,830	108,716	77,034	97,961	825,021
Indianapolis Southern Railroad Co.	98,851	17,928	432,133	395,513	75,180	82,363	73,932	1,175,900
Lake Erie & Western Railroad Co.	481,567	71,421	946,864	191,208	639,967	140,872	52,725	2,324,624
Lake Shore & Michigan Southern Railway Co.	478,401	234,112	494,999	166,290	444,041	44,667		2,162,510
Louisville & Nashville Railroad Co. (Not reported)								
Louisville, New Albany & Corydon Railroad Co.	3,730	320	8,025	8,020	4,106	5,440		29,641
Michigan Central Railroad Co.	1,256,355	567,943	1,117,802	360,539	1,647,489		623,795	5,573,923
New Jersey, Indiana & Illinois Railroad Co.			1,023	24,673	36,959	597	311	64,021
New York, Chicago & St. Louis Railroad Co.	411,717	180,488	938,937	129,590	420,301	166,156	105,603	2,352,792
Penn & Eastern Railway Co.	382,556	58,137	716,638	94,656	286,917	79,918	18,833	1,637,655
Pennsylvania Co. (Not reported)								

STEAM ROADS—TABLE No. 8—Continued.

OPERATING ROADS.	Products of							Total Tonnage, State of Indiana.
	Agriculture, Whole Tons. A.	Animals, Whole Tons. B.	Mines, Whole Tons. C.	Forest, Whole Tons. D.	Manufac- tures, Whole Tons. E.	Merchan- dise, Whole Tons. F.	Miscellan- eous, Whole Tons. G.	
Pere Marquette Railroad Co. (Not reported)								
Pittsburgh Cincinnati, Chicago & St. Louis Railway Co. (Not reported)								
St. Joseph Valley Railway Co.	3,692	267	24	1,044	1,659	314	54	7,094
Southern Railway Co.	403,285	38,060	926,837	215,860	472,765	132,727	169,756	2,359,290
Southern Indiana Railway Co. (Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Railway Co.)	43,958	5,151	1,711,014	37,862	44,324	19,619	17,839	1,879,767
Syracuse & Milford Railway Co. (Not reported)	214,926	64,892	576,752	115,852	269,215	50,166	15,105	1,306,998
Toledo St. Louis & Western Railroad Co.	665,935	258,146	4,856,519	540,172	1,611,078	293,088	68,642	8,293,580
Vandalia Railroad Co.	375,063	1,173,471	638,760	154,493	460,838	144,353	63,365	2,010,343
Wabash Railroad Co.								
Total	10,737,093	3,685,600	41,012,381	6,074,004	17,581,861	3,041,231	4,078,256	86,517,442

STEAM ROADS—TABLE No. 8—Continued.

FREIGHT TRAFFIC MOVEMENT—STATE OF INDIANA.

(Company's Material Excluded.)

OPERATING ROADS.	Freight Originating on Road in Indiana. Whole Tons.	Freight Re- ceived from Connecting Roads and Other Carriers in Indiana. Whole Tons.	Total Tonnage, Entire Line. Whole Tons.	PER CENT. OF COMMODITIES, COMPARED WITH TOTAL TONNAGE. (See Columns with Letters at Top of Same in Table No. 8.)						
				A.	B.	C.	D.	E.	F.	G.
Baltimore & Ohio Railroad Co.	1,215,180	5,581,604	15,195,332	16.14	6.73	33.78	6.88	24.16	7.37	4.94
Bedford Stone Railway Co.	22,714	57,269	79,983			99.62	.27	.11		
Central Indiana Railway Co.	148,917	154,239	303,156	13.82	1.08	48.95	5.39	28.55	.60	1.61
Chesapeake & Ohio Railway Co. of Indiana	350,030	896,727	1,246,757	7.81	3.66	38.25	9.65	24.36	5.43	10.84
Chicago & Eastern Illinois Railroad Co.	1,336,376	654,535	12,443,192	8.61	1.49	65.04	10.69	10.54	3.27	.36
Chicago & Erie Railroad Co. (Not reported)										
Chicago & Wabash Valley Railway Co.	10,813	8,827	19,640							
Chicago, Indiana & Southern Railroad Co.	900,459	5,875,924	7,120,921	8.69	6.11	65.21	5.87	13.21		.91
Chicago, Indianapolis & Louisville Railway Co.	2,241,905	1,414,274	3,656,179	12.16	3.14	46.38	8.16	15.86	6.39	7.91
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Railway Co.)	1,227,638	93,792	1,364,889	2.55	.26	87.47	1.94	5.19	1.15	1.44
Cincinnati, Bluffton & Chicago Railroad Co. (Not reported)										
Cincinnati, Hamilton & Dayton Railway Co.			1,878,199	23.79	4.76	28.79	13.10	12.40	6.92	10.24
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	3,421,512	5,514,554	23,134,794	12.95	4.60	50.06	8.58	17.70	5.17	1.54
Elgin, Joliet & Eastern Railway Co.	7,452,756	6,158,270	18,376,392	3.14	.29	55.05	1.61	31.32	.18	8.50
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Rail- road Co.	2,482,522	858,600	3,541,122	10.41	2.03	67.20	5.73	9.06	4.87	.70
Ferdinand Railroad Co. (Receivership)	9,265	7,651	17,276	16.07	.54	12.14	35.43	21.51	14.31	
Grand Rapids & Indiana Railway Co.	227,799	1,499,887	4,292,633	10.36	1.95	47.96	12.36	23.19	1.70	2.48
Grand Trunk Western Railway Co.	76,039	2,304,676	3,583,922	26.64	13.41	10.19	10.10	19.74	4.70	15.22
Illinois Central Southern Railroad Co.	318,191	529,830	27,489,564	26.61	1.91	14.12	23.91	12.82	9.08	11.45
Indianapolis Southern Railroad Co.	545,323	630,577	1,281,140	8.40	1.53	36.76	33.64	6.38	7.00	29
Lake Erie & Western Railroad Co.	969,791	1,554,833	4,893,630	19.07	2.83	37.51	7.57	25.35	5.58	.09
Lake Shore & Michigan Southern Railway Co.	576,321	1,586,189	35,614,808	9.53	3.44	57.87	2.75	25.31	1.10	
Louisville & Nashville Railroad Co. (Not reported)										
Louisville, New Albany & Corydon Railroad Co.	12,650	16,991	29,641	12.71	1.11	27.07	26.80	13.91	18.41	
Michigan Central Railroad Co.	577,917	4,996,006	18,360,369	22.54	10.19	20.05	6.47	29.56		11.19
New Jersey, Indiana & Illinois Railroad Co.	26,559	37,462	64,021	.71		1.60	38.54	57.73	.93	.49

STEAM ROADS—TABLE No. 8—Continued.

OPERATING ROADS.				Freight Re- ceived from (Connecting Roads and Other Carriers in Indiana. Whole Tons.	Total Tonnage, Entire Line, Whole Tons.	PER CENT. OF COMMODITIES, COMPARED WITH TOTAL TONNAGE. (See Columns with Letters at Top of Same in Table No. 8.)						
				Freight Originating on Road in Indiana. Whole Tons.		A.	B.	C.	D.	E.	F.	G.
New York, Chicago & St. Louis Railroad Co.	522,007	1,830,785	8,420,876	17.50	7.67	39.91	5.51	17.86	7.06	4.49		
Peoria & Eastern Railway Co.	392,354	1,245,301	3,640,285	23.36	3.55	43.76	5.78	17.52	4.88	1.15		
Pennsylvania Co. (Not reported)												
Pere Marquette Railroad Co. (Not reported)												
Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co. (Not reported)												
St. Joseph Valley Railway Co.	5,848	1,246	7,094	52.04	3.76	.34	14.72	23.39	4.43	1.32		
Southern Railway Co.			26,091,061	17.09	1.61	39.28	9.15	20.04	5.63	7.20		
Southern Indiana Railway Co. (Subsquent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Railway Co.)	1,783,503	96,264	1,879,767	2.34	.27	91.02	2.01	2.36	1.05	.95		
Syracuse & Milford Railway Co. (Not reported)												
Toledo, St. Louis & Western Railroad Co.	530,766	776,232	3,440,371	16.44	4.96	44.13	8.86	20.60	3.84	1.17		
Vandalia Railroad Co.	5,560,318	2,733,262	10,457,905	8.03	3.11	58.56	6.51	19.43	3.53	.83		
Wabash Railroad Co.			14,137,433	18.66	8.63	31.77	7.69	22.92	7.18	.15		
Total	33,145,473	47,115,777	252,062,352	14.76	3.715	43.33	11.19	19.06	5.25	4.14		

STEAM ROADS—TABLE No. 9.

TRAFFIC AND MILEAGE STATISTICS—STATE OF INDIANA.

OPERATING ROADS.	LOCOMOTIVE MILEAGE.		CAR MILEAGE—REVENUE SERVICE.				TRAIN MILEAGE.	
	Revenue Service.	Non-Revenue Service.	Freight.	Passenger.	Special.	Total.	Revenue Service.	Non-Revenue Service.
Baltimore & Ohio Railroad Co.	4,653,125	207,618	71,473,030	9,682,704	16,669	81,172,403	3,845,096	163,455
Bedford Stone Railway Co. (Not reported)								
Central Indiana Railway Co.	191,609	3,380	1,056,239	169,643		1,225,882	166,168	3,362
Chesapeake & Ohio Railway Co. of Indiana	1,193,183	78,361	13,303,277	1,440,763		14,744,040	977,909	53,926
Chicago & Eastern Illinois Railroad Co.	15,794	17,880,346	1,377,106		138,767	19,296,219	835,990	15,266
Chicago & Erie Railroad Co.	2,166,526	26,495	41,373,787	4,292,281		45,666,068	1,755,866	14,000
Chicago & Wabash Valley Railway Co. (Not reported)								
Chicago, Indiana & Southern Railroad Co.	1,338,046	37,528	33,609,723	1,136,689	12,299	34,758,711	1,120,034	35,175
Chicago, Indianapolis & Louisville Railway Co.	4,126,694	57,875	36,935,808	8,055,497	46,441	45,037,746	3,194,828	120,733
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Railway Co.)	452,113	17,380	3,746,763	177,198	352	4,224,313	314,594	16,774
Cincinnati, Bluffton & Chicago Railroad Co.	103,900						103,900	
Cincinnati, Hamilton & Dayton Railway Co.	1,304,811	7,046	10,380,558	2,032,228	1,230	12,414,016	948,511	4,635
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	8,427,267	180,787	110,871,989	16,581,276	157,237	127,610,502	6,288,792	170,069
Elgin, Joliet & Eastern Railway Co.	1,075,151	79,168	7,710,038		1,084	7,711,122	394,863	64,475
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	1,921,683	24,270	13,575,650	3,487,362	8,671	17,071,683	1,289,366	24,270
Ferdinand Railroad Co. (Receivership)	10,777	555	9,173			19,948	10,775	555
Grand Rapids & Indiana Railway Co.	1,012,907	82,618	8,553,869	2,000,155	3,410	10,557,434	811,842	82,618
Grand Trunk Western Railway Co.	1,016,146	23,003	17,011,522	2,484,958	1,245	19,497,735	914,888	23,003
Illinois Central Railroad Co.	281,265	2,359	1,675,919	299,770	1,444	1,977,133	16,390	2,359
Indianapolis Southern Railroad Co.	611,173	27,497	6,815,914	739,754	9,016	7,564,684	223,015	19,148
Lake Erie & Western Railroad Co.	2,090,470	25,875	26,811,041	2,428,366	26,262	29,265,669	193,772	15,111
Lake Shore & Michigan Southern Railway Co.	5,083,396	438,205	77,349,489	14,266,048	38,202	91,653,739	1,893,075	208,243
Louisville & Nashville Railroad Co.	6,623,416	43,695	4,883,277	765,130	455	5,648,862	343,906	43,695
Louisville, New Albany & Corydon Railroad Co. (Not reported)								
Michigan Central Railroad Co.	1,602,943	10,252	13,238,535	2,901,515	8,013	16,148,063	790,910	24,244
New Jersey, Indiana & Illinois Railroad Co.	58,579		61,899	14,385		76,284	14,823	
New York, Chicago & St. Louis Railroad Co.	1,526,915	27,885	32,799,378	2,736,824		35,536,202	1,349,071	27,885
Peoria & Eastern Railway Co.	1,077,865	9,224	14,518,192	1,349,004	13,093	15,880,289	902,315	8,998
Pennsylvania Co.	6,095,734	313,357	78,846,976	13,160,739	23,461	92,031,176	4,610,048	272,975
Pere Marquette Railroad Co.	388,566	5,585	5,783,183	866,398	766	6,650,347	348,126	5,020

STEAM ROADS—TABLE No. 9—Continued.

TRAFFIC AND MILEAGE STATISTICS—ENTIRE LINE.

OPERATING ROADS.									
	Average Receipts per Passenger per Mile.	Passenger Service Revenue per Train-Mile.	Average Receipts, Freight, per Train-Mile.	Freight Revenue per Train-Mile.	Operating Revenue per Train-Mile.	Operating Expenses per Train-Mile.	Average Number of Tons of Freight per Train-Mile.	Average Number of Loaded Cars per Train-Mile.	Average Number of Empty Cars per Train-Mile.
Baltimore & Ohio Railroad Co.	.01938	1.06978	.00643	2.27646	1.79389	1.34631	354.07	30.23	9.16
Bedford Stone Railway Co.		14722							
Central Indiana Railway Co.	.01954	37573	.01105	1.67220	1.04667	1.18058	151.75	12.65	.07
Chesapeake & Ohio Railway Co. of Indiana.	.01608	71495	.00519	1.68718	1.32636	1.45041	325.05	21.84	6.00
Chicago & Eastern Illinois Railroad Co.	.01740	1.20241	.00483	2.71029	2.18994	1.48794	561.24	32.37	13.04
Chicago & Erie Railroad Co.	.01732	1.47802	.00421	2.04508	1.79142	1.46726	485.34	35.41	10.22
Chicago & Wabash Valley Railway Co. (Not reported)									
Chicago, Indiana & Southern Railroad Co.	.01762	.63472	.00444	2.59144	2.04658	1.59729	583.84	40.00	15.63
Chicago, Indianapolis & Louisville Railway Co.	.01824	1.15417	.00836	2.62121	1.93653	1.33252	317.37	23.92	6.67
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Railway Co.)	.01934	64245	.00640	3.01312	2.13419	1.50655	470.63	29.17	12.65
Cincinnati, Bluffton & Chicago Railroad Co.		46318			62738	61067			
Cincinnati, Hamilton & Dayton Railroad Co.	.01553	91627	.00528	2.35601	1.87307	1.44803	446.30	26.79	7.93
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	.01806	1.23883	.00551	2.39468	1.88362	1.46294	434.82	23.09	10.33
Elgin, Joliet & Eastern Railway Co.	.01018		.00668	4.63274	4.90357	3.21943	603.82	32.34	11.16
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	.01923	1.10428	.00924	2.95893	2.01577	1.36038	320.36	24.78	7.09
Ferdinand Railroad Co. (Receivership)	.02107	25656	.07941	43965	1.19857	1.183	11.83	85	0.11
Grand Rapids & Indiana Railway Co.	.01874	1.11294	.00666	1.79584	1.53595	1.23053	269.50	21.34	5.98
Grand Trunk Western Railway Co.		1.32438	.00561	1.78339	1.62200	1.21279	317.91	31.00	9.56
Illinois Central Railroad Co.	.01848	1.19765	.00609	2.19813	1.94508	1.39805	361.08	29.15	8.31
Indianapolis Southern Railroad Co.	.01900	1.05935	.00611	1.56540	1.40896	1.14271	256.03	19.02	4.62
Lake Erie & Western Railroad Co.	.01588	76400	.00652	2.22203	1.69161	1.37927	340.59	27.04	7.31
Lake Shore & Michigan Southern Railway Co.	.01872	1.00774	.00528	3.18279	2.45017	1.70012	602.71	43.51	13.80
Louisville & Nashville Railroad Co.	.02275	1.34538	.00767	2.11305	1.92038	1.36860	275.59	21.49	6.55
Louisville, New Albany & Corydon Railroad Co.	.02000								
Michigan Central Railroad Co.	.01991	1.41325	.00625	2.59662	2.16508	1.62415	416.09	38.15	10.85
New Jersey, Indiana & Illinois Railroad Co.	.02250	.08709	.00041	3.08630	3.25852	1.63504	51.09	4.18	3.04
New York, Chicago & St. Louis Railroad Co.	.01652	1.51153	.00507	1.74674	1.73410	1.26973	344.68	3.20	9.25
Peoria & Eastern Railway Co.	.01953	1.07272	.00562	2.17136	1.74929	1.36256	387.76	27.60	7.75
Pennsylvania Co.	.01849	1.30735	.00585	2.84805	2.31155	1.57824	487.22	29.86	8.99

STEAM ROADS—TABLE No. 9—Continued.

OPERATING ROADS.								
Average Receipts per Passenger per Mile.	Passenger Service Train Revenue per Train-mile.	Average Freight, per Ton per Mile.	Freight Revenue per Train-mile.	Operating Revenue per Train-mile.	Operating Expenses per Train-mile.	Average Number of Tons of Freight Cars per Train-mile.	Average Number of Loaded Cars per Train-mile.	Average Number of Empty Cars per Train-mile.
.01774	1.13129	.00579	1.85558	1.63621	1.31603	320.32	17.96	6.64
.01852	1.32497	.00620	2.40399	2.01936	1.45466	387.48	19.22	9.34
.01780	.20914	.05327	.72326	.30873	.27621	13.57	.97	.67
.02169	1.18146	.00966	2.32352	1.85206	1.25608	240.51	16.54	6.73
.01904	.75988	.00830	3.39677	2.37361	1.76122	409.04	13.83	10.39
.01785	.70044	.00527	2.37739	1.72719	1.19241	450.97	23.90	9.78
.02050	1.21576	.00621	2.12986	1.76598	1.36580	343.13	16.25	8.10
.01926	1.19018	.00603	2.07673	1.73513	1.29863	344.38	19.49	8.99
.018175	.93421	.01565	2.28462	1.85278	1.39354	356.85	16.64	7.99
Average								

STEAM ROADS—TABLE No. 9—Continued.

TRAFFIC AND MILEAGE STATISTICS—STATE OF INDIANA.

OPERATING ROADS.									
	Average Receipts per Passenger per Mile.	Passenger Service Revenue per Train-Mile.	Average Receipts, Freight, per Ton per Mile.	Freight Revenue per Train-Mile.	Operating Revenue per Train-Mile.	Operating Expenses per Train-Mile.	Average Number of Tons of Freight per Train-Mile.	Average Number of Loaded Cars per Train-Mile.	Average Number of Empty Cars per Train-Mile.
Baltimore & Ohio Railroad Co.	.01998	.91847	.00621 .14722	2.30698	1.73294	1.27932	371.65	22.54	10.18
Bedford Stone Railway Co.									
Central Indiana Railway Co.	.01954	.37573	.01105	1.67720	2.04667	1.18058	151.75	7.52	4.07
Chesapeake & Ohio Railway Co. of Indiana.	.01604	.71605	.00490	1.60447	1.28189	1.37613	327.56	20.55	5.93
Chicago & Eastern Illinois Railroad Co.	.01850	1.27912	.00483	2.63835	2.26973	1.59705	546.35	31.29	12.06
Chicago & Erie Railroad Co.	.01732	1.17804	.00421	2.04508	1.79142	1.46726	485.34	35.41	10.22
Chicago & Wabash Valley Railroad Co.	.01762	.63801	.00411	2.94563	2.26766	1.60446	711.13	25.27	16.79
Chicago, Indiana & Southern Railroad Co. (Not reported)									
Chicago, Indianapolis & Louisville Railway Co.	.01824	1.16777	.00800	2.61081	1.95583	1.34579	327.29	16.31	6.61
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1911, known as The Southern Indiana Railway Co.)	.01834	.64245	.00860	3.22173	2.02425	61067	374.82	12.74	9.44
Cincinnati, Bluffton & Chicago Railroad Co.	.01644	.91288	.00702	2.13843	1.56823	1.24848	304.71	14.73	5.82
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	.01806	1.23883	.00551	2.39468	1.88361	1.46294	434.82	34.42	10.33
Elgin, Joliet & Eastern Railway Co.			.00217	4.64138	4.86904	3.24509	2142.68	19.37	6.16
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	.01923	1.04280	.00924	2.95893	2.01577	1.36038	320.36	16.75	7.09
Fertinand Railway Co. (Receivership)	.02107	.25656	.07941	.33965	1.19857	1.02392	11.83	.85	.11
Grand Rapids & Indiana Railway Co.	.01956	1.08980	.00688	2.18089	1.66204	1.41086	316.93	21.01	12.04
Grand Trunk Western Railway Co.	.01695	1.32436	.00531	1.65381	1.20454	1.20454	300.44	30.10	19.56
Illinois Central Railroad Co.	.01970	.77368	.00994	1.59192	1.98935	1.51970	160.23	16.93	11.13
Indianapolis Southern Railroad Co.	.01555	1.09633	.00597	1.54176	1.40761	1.13870	258.21	18.76	4.66
Lake Erie & Western Railroad Co.	.01588	.76460	.00652	2.22203	1.69161	1.37927	340.79	27.04	7.31
Lake Shore & Michigan Southern Railway Co.	.01872	1.58242	.00528	3.18279	1.68883	2.34527	602.71	28.49	13.83
Louisville & Nashville Railroad Co.	.02201	1.67423	.00835	2.27893	2.10715	1.44063	286.48	15.42	6.74
Louisville, New Albany & Corydon Railroad Co.	.02000								
Michigan Central Railroad Co.	.01883	1.77369	.00608	3.29294	2.63774	2.14981	487.24	34.38	9.80
New Jersey, Indiana & Illinois Railroad Co.	.02280	.08709	.06041	3.08630	3.25852	1.63504	51.09	4.18	1.04
New York, Chicago & St. Louis Railroad Co.	.01453	1.47895	.00507	2.31568	1.69557	1.69557	502.48	32.66	11.18
Peoria & Eastern Railway Co.	.01932	1.07272	.00560	2.17136	1.74929	1.36256	387.76	27.60	7.75
Pennsylvania Co.	.01877	1.37642	.00627	2.26992	1.94517	1.39228	392.23	29.61	8.89

STEAM ROADS—TABLE No. 9—Continued.

OPERATING ROADS.									
Average Receipts per Passenger per Mile.	Passenger Service Revenue per Train-Mile.	Average Receipts, Freight, per Ton per Mile.	Freight Revenue per Train-Mile.	Operating Revenue per Train-Mile.	Operating Expenses per Train-Mile.	Average Number of Tons of Freight & Freight per Train-Mile.	Average Number of Loaded Cars per Train-Mile.	Average Number of Empty Cars per Train-Mile.	
01785	1.79681	.00628	1.94367	2.00132	1.11816	309.57	27.84	18.22	8.72
01857	1.33364	.00605	2.37325	1.98381	1.44459	392.45	29.82	19.22	9.66
01780	20914	.05923	72326	30873	27621	13.57	1.08	.97	57
01959	83355	.00703	2.00556	1.54341	1.33494	285.20	23.10	15.87	5.30
01904	75988	.00830	3.39677	2.37361	1.76122	409.04	25.16	13.83	10.39
	</								

STEAM ROADS—TABLE No. 10.

EMPLOYES AND SALARIES—STATE OF INDIANA.

OPERATING ROADS.	Maintenance of Way and Structures.		Maintenance of Equipment.		Traffic Expenses.		Transportation Expenses.		General Expenses.		Total, Including General Officers.		General Officers.		Average Daily Compensation, Excluding General Officers.		Entire Line, and Including General Officers.	
	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.
Baltimore & Ohio Railroad Co.	833	\$1 69	1,433	\$2 06	5	\$3 70	1,463	\$2 65	22	\$1 41	3,754	\$2 24	13	\$15 34	\$2 20	11,549	\$2 27	
Bedford Stone Railway Co.	4	1 93					4	2 47			14	2 13	6		2 13	14	2 13	
Central Indiana Railway Co.	65	1 64	44	2 03	6	2 43	67	2 13	10	3 64	192	2 05	4	6 22	1 95	192	2 05	
Chesapeake & Ohio Railway Co. of Indiana	556	1 75	358	2 08	21	3 33	376	2 76	35	2 73	1,346	2 24	3	10 94	2 22	1,647	2 27	
Chicago & Eastern Illinois Railroad Co.	235	1 72	25	2 17	14	3 07	159	2 22			433	1 95			1 95	1,573	2 37	
Chicago & Erie Railroad Co.											1,616	2 31	1	32 86	2 30	2,719	2 31	
Chicago & Wabash Valley Railway Co.	41	1 51	3	2 06			11	1 10	2	1 12	59	1 46	4	3 23	1 41	59	1 46	
Chicago, Indiana & Southern Railroad Co.	412	1 96	622	2 40			302	2 53	22	1 93	1,358	2 29			2 29	1,358	2 29	
Chicago, Indianapolis & Louisville Ry. Co.	862	1 74	650	2 11	51	4 08	1,395	2 63	144	3 78	3,102	2 37	14	16 04	2 31	3,102	2 31	
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Ry. Co.)	161	1 84	315	1 72	14	2 71	254	2 99	41	4 10	788	2 36	7	14 85	2 25	983	2 42	
Cincinnati, Bluffton & Chicago Railroad Co.	24	1 55	10	1 98	1	2 95	27	2 11	3	4 65	63	2 03	2	7 38	1 84	63	2 03	
Cincinnati, Hamilton & Dayton Railway Co.	217	1 84	382	2 34	167	3 53	586	3 03	153	2 60	1,505	2 59	19	14 15	2 56	6,977	2 49	
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	1,348	1 91	1,399	2 51	163	3 49	3,013	2 95	425	3 15	6,292	2 63	19	19 64	2 61	16,104	2 60	
Elgin, Joliet & Eastern Railway Co.	357	1 85	314	2 30	22	2 89	485	3 16	74	4 31	1,252	2 59	6	18 92	2 56	3,826	2 55	
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	673	1 52	367	2 03	53	93	928	2 51	133	1 33	2,154	2 03	11	3 98	2 01	2,154	2 03	
Ferdinand Rapids & Indiana Railway Co.	5	1 61					7	1 31	1	1 31	13	1 36	1	1 31	1 47	13	1 46	
Grand Rapids & Indiana Railway Co.	533	1 99	689	2 29	77	3 26	1,407	2 40	119	3 85	2,858	2 36	13	16 04	2 29	2,858	2 36	
Grand Trunk Western Railway Co.	113	1 76	14	1 64	12	2 40	250	2 35	16	2 13	405	2 14	1	18 04	2 10	4,018	2 27	
Illinois Central Railroad Co.	85	1 75	60	2 21	8	2 49	226	2 27			379	2 14			2 14	49,705	2 31	
Indianapolis Southern Railroad Co.	270	1 66	72	2 25	8	2 83	252	2 78	2	3 86	604	2 26			2 26	964	2 27	

STEAM ROADS—TABLE No. 10—Continued.

OPERATING ROADS.	Maintenance of Way and Structures.		Maintenance of Equipment.		Traffic Expenses.		Transportation Expenses.		General Expenses.		Total, Including General Officers.		General Officers.		Average Daily Compensation, Excluding General Officers.		Entire Line, and Including General Officers.	
	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.	Number Employed.	Average Daily Compensation.
Lake Erie & Western Railroad Co.	497	\$1 88	304	\$2 35	46	\$3 80	806	\$2 55	119	\$3 08	1,772	\$2 38	18	\$6 73	3,618	\$2 36	3,618	\$2 36
Lake Shore & Michigan Southern Ry. Co.	1,223	1 82	1,094	2 62	5	3 46	1,763	2 65	4	2 48	4,085	2 31			29,562	2 38	29,562	2 38
Louisville & Nashville Railroad Co.	153	1 74	555	2 37	18	3 32	438	2 25			1,168	2 26			31,709	2 24	31,709	2 24
Louisville, New Albany & Corydon Railroad Co.	5	1 29					7	1 57	3	3 02	15	1 08	3	3 02	15	1 80	15	1 80
Michigan Central Railroad Co.	142	1 80	197	2 24			533	3 01			872	2 55			15,419	2 36	15,419	2 36
New Jersey, Indiana & Illinois Railroad Co.	5	1 94	1	2 83			14	1 57	7	5 19	27	2 17	5	12 33	27	2 17	27	2 17
New York, Chicago & St. Louis Railroad Co.	427	1 93	55	2 38	106	2 38	383	3 18			1,010	2 60			7,045	2 57	7,045	2 57
Porta & Eastern Railway Co.	218	1 81	193	2 43	20	3 38	408	2 70	50	2 51	889	2 45	19	2 28	1,810	2 46	1,810	2 46
Pennsylvania Co.	759	1 97	1,658	2 73	28	4 59	1,352	3 09	58	3 89	182	1 46	2	22 18	27,862	2 64	27,862	2 64
Pere Marquette Railroad Co.	63	1 73	40	2 22	55	4 09	197	3 37	308	2 72	678	2 84	17	18 26	10,571	2 50	10,571	2 50
Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.	2,197	1 88	1,675	2 53	124	4 59	3,096	2 98	187	3 89	7,277	2 59	6	22 19	20,795	2 65	20,795	2 65
St. Joseph Valley Railway Co.	17	1 59	5	1 94			19	1 94	2	3 37	43	1 87	1	4 93	179	1 87	179	1 87
Southern Indiana Ry. Co.	299	1 51	507	2 17			712	2 30	1	66	1,519	2 12			35,151	1 98	35,151	1 98
January 1, 1911. Known as Chicago, Terre Haute & Northwestern Ry. Co.																		
Syracuse & Milford Railway Co. (Not reported)	158	1 96	299	2 42	15	2 00	482	2 35	28	4 20	988	2 35	5	13 86	988	2 35	988	2 35
Toledo St. Louis & Western Railroad Co.	181	1 77	223	2 09	22	1 45	373	2 29	58	1 37	857	2 04	5	6 93	2,253	2 04	2,253	2 04
Vandalia Railroad Co.	897	1 96	1,351	2 37	60	3 39	1,486	2 95	58	3 40	3,852	2 57	7	18 32	5,792	2 60	5,792	2 60
Wabash Railroad Co.	428	1 67	588	2 22	30	3 35	968	2 57	63	3 16	2,097	2 35	5	16 74	14,750	2 35	14,750	2 35
Total and averages	14,463	\$1 76	15,502	\$2 24	1,163	\$2 99	24,249	\$2 49	2,147	\$2 89	55,520	\$2 20	217	\$12 83	317,379	\$2 25	317,379	\$2 25

STEAM ROADS—TABLE No. 11.

TAXES AND ASSESSMENTS—STATE OF INDIANA.

OPERATING ROADS.	Ad Valorem Tax on the Value of Real and Personal Property.	On Property Owned, Not Used in Operation and Miscellaneous.	Total in Indiana.	Entire Line.
Baltimore & Ohio Railroad Co. (Not reported)	\$3,634 95	\$150 47	\$3,785 42	\$3,785 42
Bedford Stone Railway Co.	18,171 72		18,171 72	18,171 72
Central Indiana Railway Co.	39,600 00		39,600 00	45,480 00
Chesapeake & Ohio Railway Co. of Indiana	93,197 60		93,197 60	338,128 91
Chicago & Eastern Illinois Railroad Co.	91,954 61	1,551 49	93,506 10	145,713 86
Chicago & Erie Railroad Co.	2,250 96		2,250 96	2,250 96
Chicago & Wabash Valley Railway Co.	120,907 61	105 36	121,012 97	164,093 10
Chicago, Indiana & Southern Railroad Co.	258,698 57		258,698 57	268,445 08
Chicago, Terre Haute & Louisville Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Railway Co.)	42,000 00		42,000 00	52,200 00
Chicago, Terre Haute & Southern Railway Co.	7,249 92		7,249 92	7,249 92
Cincinnati, Bluffton & Chicago Railroad Co.	62,847 01	673 46	63,520 47	378,976 73
Cincinnati, Hamilton & Dayton Railway Co.	362,375 74	6,621 36	368,997 10	973,548 00
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	96,384 47	852 49	102,300 29	219,202 17
Elgin, Joliet & Eastern Railway Co.	119,188 00		119,188 00	119,188 00
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	533 24		533 24	533 24
Ferdinand Railway Co. (Receivership)	48,389 90	349 63	48,739 53	286,494 27
Grand Rapids & Indiana Railway Co.	75,984 85		75,984 85	379,621 01
Grand Trunk Western Railway Co.	12,354 08		12,354 08	2,671,290 22
Illinois Central Railroad Co.	36,485 61		36,485 61	49,558 80
Indianapolis Southern Railroad Co.	149,898 70		149,898 70	225,998 15
Lake Erie & Western Railroad Co.	295,178 35	11 96	295,190 31	1,720,182 33
Lake Shore & Michigan Southern Railway Co.	44,649 70		44,649 70	1,789,718 27
Louisville & Nashville Railroad Co.	1,597 42		1,597 42	1,597 42
Louisville, New Albany & Corydon Railroad Co.	91,322 56		91,322 56	1,355,019 92
Michigan Central Railroad Co.	2,178 70	10 00	2,188 70	2,188 70
New Jersey, Indiana & Illinois Railroad Co.	106,679 04		106,679 04	354,717 68
New York, Chicago & St. Louis Railroad Co.	63,894 93	1,063 87	64,958 80	114,877 92
Pennsylvania Co.	329,523 02	6,610 75	336,133 77	2,241,281 61
Pennsylvania & Eastern Railway Co.	25,414 66		25,414 66	664,770 22
Pere Marquette Railroad Co.	626,269 43	6,739 71	633,009 14	1,628,654 82
Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.	3,207 74		3,207 74	3,207 74
St. Joseph Valley Railway Co.	72,306 25	3,292 95	75,599 20	2,212,967 87
Southern Railway Co.				

Southern Indiana Railway Co. (Subsequent to January 1, 1911, known as Chicago.

Terre Haute & Southeastern Railway Co.)	41,571 00	41,571 00	41,571 00
Syracuse & Milford Railway Co. (Not reported)	63,033 51	63,033 51	171,052 78
Toledo, St. Louis & Western Railroad Co.	227,126 26	232,142 00	332,694 89
Vandalia Railroad Co.	201,062 78	5,015 74	920,872 51
Wabash Railroad Co.			
Total	\$3,837,322 89	\$33,049 24	\$4,403,103 47

SWITCHING ROADS.

Baltimore & Ohio—Chicago Terminal Railroad Co.	\$12,839 99	\$12,839 99	\$220,741 50
Bedford & Wallner Railroad Co.	1,132 14	1,132 14	1,132 14
Chicago & South Bend Railroad. (Not reported)			
Elwood, Anderson & Lapel Railroad Co.	1,761 00	1,761 00	1,761 00
Indianapolis Union Railway Co.	103,837 70	\$722 88	104,560 58
Indiana Harbor Belt Railroad Co.	14,942 03		104,560 58
Muncie & Western Railroad Co.			65,098 08
Muncie Belt Railway Co.	1,309 27		
Baltimore & Ohio & Chicago Railroad Co.	110,087 26		1,309 27
Baltimore & Ohio Southwestern Railroad Co.	161,939 70	8,644 17	239,391 40
Bedford Belt Railway Co.	1,730 18	7,211 16	501,654 50
Total	\$409,579 27	\$16,578 21	1,730 18
		\$420,157 48	\$1,137,378 65

STEAM ROADS—TABLE No. 12.

DESCRIPTION OF EQUIPMENT—ENTIRE LINE—ON JUNE 30, 1911.

OPERATING ROADS.	Locomotives in Service, Owned or Leased.	CARS OWNED OR LEASED.				Less Cars Leased.	Total Cars Owned.	NUMBER OF CARS FITTED WITH—	
		In Passenger Service.	In Freight Service.	In Company's Service.	Total Cars in Service.			Train Brake.	Automatic Coupler.
Baltimore & Ohio Railroad Co. (Not reported).									
Bedford Stone Railroad Co.	1		30		30		30	30	30
Central Indiana Railroad Co.	10	4	267	9	280	10	270	280	280
Chesapeake & Ohio Railway Co.	55	23	897	53	973		973	940	973
Chicago & Eastern Illinois Railroad Co.	325	147	19,381	440	19,968	520	19,448	19,968	19,730
Chicago & Erie Railroad Co.	38	52	109	146	307		307	232	307
Chicago & Wabash Valley Railway Co.	1		1		20	1	29	30	30
Chicago, Indiana & Northern Railroad Co.	147	29	9,198	564	9,791		9,791	9,773	9,791
Chicago, Indianapolis & Louisville Railway Co.	137	107	6,000	264	6,371	68	6,303	6,371	6,371
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Railway Co.)									
Cincinnati, Bluffton & Chicago Railway Co.	66	29	6,361	156	6,546		6,546	6,497	6,546
Cincinnati, Hamilton & Dayton Railroad Co.	6	6	73	73	79		79	79	79
Cincinnati, Hamilton & Dayton Railroad Co.	260	209	12,017	294	12,520	5,671	6,849	12,520	12,520
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	783	496	24,181	1,524	26,201	300	25,901	26,010	26,201
Elgin, Joliet & Eastern Railway Co.	248	3	11,790	408	12,201	9,277	2,924	12,079	12,201
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	54	30	5,397	76	5,503		5,503	5,449	5,503
Ferdinand Railroad Co.	1	1	1	1	3		3		3
Grand Rapids & Indiana Railway Co.	92	113	3,229	145	3,487		3,485	3,437	3,487
Grand Trunk Western Railway Co.	234	73	3,064	180	3,917	2	1,858	1,853	1,858
Illinois Central Railroad Co.	1,321	876	59,137	2,840	62,853	1,500	61,353	62,638	62,853
Indianapolis Southern Railroad Co.	20	12	695	16	723		723	723	723
Lake Erie & Western Railroad Co.	140	81	3,704	288	4,133	129	4,004	4,081	4,133
Lake Shore & Michigan Southern Railway Co.	1,009	686	50,783	2,703	54,172	1,084	53,088	53,039	53,085
Louisville & Nashville Railroad Co.	934	599	44,297	2,243	47,109	525	46,584	46,155	47,109
Louisville, New Albany & Corydon Railroad Co.	2	1	1		2		2	2	2
Michigan Central Railroad Co.	667	484	24,437	1,355	26,276	250	26,026	25,754	26,026
New Jersey, Indiana & Illinois Railroad Co.	2	1	3		4		4	4	4
New York, Chicago & St. Louis Railroad Co.	248	99	13,025	380	13,504		13,504	12,504	12,504
Pennsylvania Co.	77	49	1,870	121	2,040		2,040	2,038	2,040
Pennsylvania Co.	1,105	637	56,790	809	58,202	34,841	23,421	23,421	23,421
Pere Marquette Railroad Co.	448	332	18,275	335	19,062		19,062	19,052	19,062

Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.....	732	541	25,297	492	26,330	799	25,531	25,462	25,531
St. Joseph Valley Railway Co.....	3	2	1	3	3	3	3	3
Southern Railway Co.....	1,546	1,042	51,074	1,475	54,091	3,412	50,679	50,003	50,679
Southern Indiana Railway Co. (Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southern Railway Co.).....	46	29	5,706	148	5,883	5,883	5,834	5,883
Syracuse & Milford Railway Co. (Not reported).....
Toledo, St. Louis & Western Railroad Co.....	94	40	3,218	107	3,365	3,365	3,322	3,365
Vandalia Railroad Co.....	234	166	8,911	230	9,307	531	8,776	9,307	9,307
Wabash Railroad Co.....	645	419	21,342	586	22,347	1,745	20,602	22,135	22,347
Total.....	11,801	7,498	491,198	19,024	517,720	62,724	454,950	472,005	474,987

SWITCHING ROADS.									
Baltimore & Ohio—Chicago Terminal Railroad Co.....	41	40	819	55	914	914	914	914
Bedford & Wallhor Railroad Co.....	1	2	2	2	2	2
Chicago & South Bend Railroad.....	2
Elwood, Anderson & Lapel Railroad Co.....	3	3	3	2	3
Indianapolis Union Railway Co.....	19	19	19	19	19	19
Indiana Harbor Belt Railroad Co.....	19	247	44	291	291	291	291
Muncie & Western Railroad Co. (Not reported).....
Muncie Belt Railway Co.....	2
Total.....	86	40	1,071	118	1,229	1,229	1,226	1,231

STEAM ROADS—TABLE No. 13.

CHARACTERISTICS OF ROAD—STATE OF INDIANA.

Main Line and Branches Included. Number.	Number of Miles Included.	ALIGNMENT.			ASCENDING GRADES.			DESCENDING GRADES.			
		Number of Curves.	Aggregate Length of Curved Line. Miles.	Aggregate Length of Straight Line. Miles.	Length of Level Line. Miles.	Number.	Sum of Ascents. Feet.	Aggregate Length of Ascending Line. Miles.	Number.	Sum of Descents. Feet.	Aggregate Length of Descending Line. Miles.
Baltimore & Ohio Railroad Co.	387.05	287	64.41	322.64	86.26	164	3,514	161.25	149	3,514	139.54
Bedford Stone Railroad Co. (No report)											
Central Indiana Railway Co.	117.58	96	17.00	100.58	5.06	25	873	46.00	27	1,164	65.00
Chesapeake & Ohio Railway Co. of Indiana	227.62	197	26.14	201.48	57.89	114	1,212	76.24	125	249	93.49
Chicago & Eastern Illinois Railroad Co.	254.89	248	47.52	207.37	63.05	185	2,088	105.33	169	1,686	86.51
Chicago & Erie Railroad Co.	100.17	29	7.03	153.14	45.47	65	895	52.24	72	895	62.46
Chicago & Wabash Valley Railway Co. (No report)											
Chicago, Indiana & Southern Railroad Co.	184.84	46	8.92	175.92	54.53	79	660	58.63	80	666	71.68
Chicago, Indianapolis & Louisville Ry. Co.	577.71	537	102.68	434.56	160.33	280	5,883	189.08	290	6,045	188.01
Chicago, Terre Haute & Southeastern Ry. Co. (Prior to January 1, 1911, known as The Southern Indiana Ry. Co.)											
Cincinnati, Bluffton & Chicago Railroad Co.	236.53	269	63.45	168.89	56.65	178	2,974	93.73	190	2,804	81.96
Cincinnati, Hamilton & Dayton Railroad Co.	52.53		6.00	46.53	16.10	16	116	9.60	35	213	26.83
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	172.58	94	19.40	135.67	22.36	51	87	56.44	48	1,151	76.27
Elgin, Joliet & Eastern Railway Co.	1,080.61	780	148.46	932.15	185.53	887	9,212	441.24	785	8,925	453.84
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.	42.68	25	5.19	37.49	14.74	22		11.76	28	144	16.18
Ferdinand Railroad Co.	294.16	396	56.17	237.99	59.05	267	3,112	132.20	230	2,789	102.76
Grand Rapids & Indiana Railway Co.	6.48	5	1.37	5.11	1.54	5	226	4.28	3	35	66
Grand Trunk Western Railway Co.	138.98	57	12.25	126.73	25.70	110	1,554	51.46	122	1,628	61.82
Illinois Central Railroad Co.	80.67	17	3.45	77.22	16.01	37	299	25.82	38	492	38.84
Indianapolis Southern Railroad Co.	56.65	85	14.04	42.61	20.96	40	486	16.71	46	283	18.98
Lake Erie & Western Railroad Co.	122.56	127	23.70	98.86	19.39	147	1,230	39.54	192	1,614	61.49
Lake Shore & Michigan Southern Ry. Co.	445.52	177	46.49	399.03	75.88	217	3,346	175.56	231	3,866	194.08
Louisville & Nashville Railroad Co.	258.26	127	33.96	224.30	36.33	113	1,642	123.61	115	1,315	98.32
Louisville, New Albany & Corydon R. R. Co.	58.10	28	8.49	29.61	13.28	18	327	9.90	20	362	14.83
Michigan Central Railroad Co. (Can not give information)	7.70	21	4.40	3.30	2.00	10	1,405	2.70	10	1,405	2.70

New Jersey, Indiana & Illinois Railroad Co.	11.49	9	2.10	9.39	2.99	5	173	7.00	2	64	1.50
New York, Chicago & St. Louis Railroad Co.	151.02	79	9.82	141.20	21.83	149	931	59.30	161	1,093	69.89
Peoria & Eastern Railroad Co.	153.45	62	16.16	137.29	27.79	108	1,449	52.35	129	1,883	73.31
Pennsylvania Co.	161.01	25	5.87	155.14	20.62	60	742	52.38	52	950	88.01
Pere Marquette Railroad Co.	53.09	32	7.58	45.51	16.90	33	355	20.63	25	359	15.57
Pittsburgh, Cincinnati, Chicago & St. Louis Railroad Co.	686.13	243	54.63	631.50	73.06	289	4,969	276.38	285	6,030	336.68
St. Joseph Valley Railway Co.	43.02	55	5.50	37.70	18.72	56	44	11.89	64	45	14.13
Southern Indiana Ry. Co. (Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Ry. Co.)	232.34	269	63.45	168.89	56.65	178	2,974	93.73	190	2,804	81.96
Syracuse & Milford Ry. Co. (No report)	171.20	136	21.35	149.85	2.63	109	1,316	79.40	195	1,491	89.17
Toledo, St. Louis & Western Railroad Co.	502.70	347	81.43	421.27	76.05	332	4,632	206.91	289	4,480	219.74
Vandalia Railroad Co.	351.71	184	41.91	309.80	105.88	214	2,021	110.50	235	3,032	133.33
Wabash Railroad Co.											
Total	7,464.03	5,089	1,030.32	6,068.72	1,461.23	4,633	59,737	2,853.88	4,653	63,115	3,081.81

SWITCHING ROADS.

Baltimore & Ohio—Chicago Terminal Railroad Co.	10.00	3	58	9.42	3.77	7	12	3.04	7	10	3.19
Bedford & Wallner Railroad Co. (No report)											
Chicago & South Bend Railroad. (No report)											
Elwood, Anderson & Lapel Railroad Co. (No report)											
Indianapolis Union Railway Co.	10.33	17	2.73	7.60	.51	32	145	7.10	10	38	2.72
Indiana Harbor Belt Railroad Co.	11.04	29	3.70	7.34							
Muncie & Western Railroad Co. (No report)											
Muncie Belt Railway Co.	6.77										
Evansville Belt Railway Co.	3.77	10	1.37	2.40	3.27	1	7	20	2	16	.30
Indianapolis & Louisville Railway Co.	59.70	53	14.99	44.71	22.07	30	666	14.86	31	936	22.77
Indiana Stone Railroad Co.	9.22	16	5.83	3.39	3.40	1	45	22	6	143	5.60
Total	110.83	128	32.90	74.86	33.02	71	875	25.42	56	1,143	34.58

STEAM ROADS—TABLE No. 14.

CHARACTERISTICS OF ROAD—STATE OF INDIANA.

BRIDGES, TRETTLES, TUNNELS, ETC.

	STONE AND CEMENT.		IRON AND STEEL.		WOODEN.		COMBINATION.		TOTAL.		TRETTLES.		TUNNELS.		
	Num-ber.	Aggre-gate Length. Feet.	Num-ber.	Aggre-gate Length. Feet.	Num-ber.	Aggre-gate Length. Feet.	Num-ber.	Aggre-gate Length. Feet.	Num-ber.	Aggre-gate Length. Feet.	Num-ber.	Aggre-gate Length. Feet.	Num-ber.	Aggre-gate Length. Feet.	
OPERATING ROADS.															
Baltimore & Ohio Railroad Co.	66	1,008	74	9,890			1	65	139	10,963	51	6,708	2	2,849	
Bedford Stone Railroad Co.											2	300			
Central Indiana Railroad Co.			15	912					15	912	71	4,091			
Chesapeake & Ohio Railway Co. of Indiana			15	2,603					15	2,603	164	13,915			
Chicago & Eastern Illinois Railroad Co.	3	82	41	5,065					44	5,147	181	13,644			
Chicago & Erie Railroad Co.			65	3,294					65	3,294	17	1,950			
Chicago & Wabash Valley Railroad Co. (Not reported)															
Chicago, Indiana & Southern Railroad Co.	23	9,352	21	1,207					44	10,589	67	5,480			
Chicago, Indianapolis & Southern Railroad Co.			72	13,732	3	790	4	476	79	14,998	175	12,606	1	1,346	
Chicago, Terre Haute & Southeastern Railway Co. (Prior to January 1, 1911, known as The Southern Indiana Ry. Co.)			21	3,148					21	3,148	189	23,064	1	1,107	
Cincinnati, Bluffton & Chicago Railroad Co.					17	839			17	839					
Cincinnati, Hamilton & Dayton Railroad Co.	15	213	58	6,703					73	6,916	41	3,369			
Cleveland, Cincinnati, Chicago & St. Louis Railway Co.	199	6,970	140	14,250			1	174	340	21,394	80	8,405			
Elgin, Joliet & Eastern Railway Co.			13	826					13	826	9	947			
Evansville & Terre Haute Railroad Co. and Evansville & Indianapolis Railroad Co.			56	3,964					56	3,964	224	20,373			
Ferdinand Railroad Co.			24	1,809	12	465			12	465					
Grand Rapids & Indiana Railway Co.			21	886					24	1,809	40	1,455			
Grand Trunk Western Railway Co.	5	41	11	870					16	928	24	887			
Illinois Central Railroad Co.	1	5	4	870					5	875	60	8,407			
Indianapolis Southern Railroad Co.	3	50	20	7,200					23	7,250	149	21,861	1	508	
Lake Erie & Western Railroad Co.	99	916	72	7,565					171	8,481	110	5,904			
Lake Shore & Michigan Southern Railway Co.	5	223	39	2,200					46	2,554	31	2,937			
Louisville & Nashville Railroad Co.			4	2,910	2	61			4	2,910	24	18,994			
Louisville, New Albany & Corydon Railroad Co.									2	600	1	900			
Michigan Central Railroad Co.	3	37	12	1,181	1	300	1	300	15	1,218	6	645			
New Jersey, Indiana & Illinois Railroad Co.					1	71			1	71					
New York, Chicago & St. Louis Railroad Co.			6	1,080	3	78			9	1,158	26	2,991			

Poeria & Eastern Railway Co.	1	26				1	17							153.45
Pennsylvania Co.	8	18				6	10							161.01
Pere Marquette Railroad Co.						2	21							53.00
Pittsburgh, Cincinnati, Chicago & St. Louis Railway Co.	20	17				5	15							686.13
St. Joseph Valley Railway Co.	1	21				1	21							43.40
Southern Railway Co.	1	29	4			1	29		6	15				236.17
Southern Indiana Ry. Co. (Subsequent to January 1, 1911, known as Chicago, Terre Haute & Southeastern Ry. Co.)	4	21				2	22		1	20				236.83
Syracuse & Milford Railway Co. (Not reported)	2	22				1	21							
Toledo, St. Louis & Western Railroad Co.	11	18	7			6	18		1	19				171.20
Vandalia Railroad Co.	7	22	1			3	21							
Wabash Railroad Co.														
Total	183	496	58			86	524	1	18	11	105			5,883.67

SWITCHING ROADS.														
Indianapolis Union Railway Co.	1	19												61.22
Total	1	19												61.22

NON-OPERATING ROADS.														
Indianapolis & Louisville Railway Co.			4			22								
Total			4			22								

ELECTRIC ROADS—TABLE No. 1.

MILEAGE OF ROAD OPERATED—STATE OF INDIANA—SINGLE TRACK.

OPERATING ROADS.	Line Owned.	Line of Proprietary Companies.	Line Operated Under Lease.	Line Operated Under Contract.	Line Operated Under Rights.	Total Mileage Operated. State of Indiana.	New Line Constructed During the Year. State of Indiana.	Total Mileage Operated. Entire Line.	New Line Constructed During the Year. Entire Line.
Angola Railway and Power Co.	3.75					3.75		3.75	
Bluffton, Geneva & Celina Traction Co.	17.89					17.89		17.89	
Chicago, Lake Shore & South Bend Railway Co.	70.86				21	71.07		78.37	
Chicago, New York Electric Air Line Railroad Co.	20.00					20.00	7.00	20.00	
Chicago, South Bend & Northern Indiana Railway Co.	110.88			8.66		119.54		119.54	
Cincinnati, Lawrenceburg & Aurora Electric Street Railroad Co.	9.13					9.13		23.01	
Evansville Railway Co.			54.76	4.76		59.52	5.71	59.52	
Evansville & Southern Indiana Traction Co.	62.85					62.85		62.85	
Evansville Suburban & Newburgh Railway Co.	24.67					24.67		24.67	
Fort Wayne & Northern Indiana Traction Co. (Prior to February 25, 1911 known as Fort Wayne & Wabash Valley Traction Co.)	210.36					210.36		210.36	
Fort Wayne & Springfield Railway Co.	19.30					19.30		19.30	
Gary & Interurban Railway Co.	9.00					9.00		9.00	
Indianapolis & Cincinnati Traction Co.	101.36				3.01	104.37		104.37	
Indianapolis, Columbus & Southern Traction Co.	58.17				4.18	65.36		65.36	
Indianapolis, Crawfordville & Western Traction Co.	42.20			2.90		45.10		45.10	
Indianapolis & Louisville Traction Co.	40.92					40.92	10	40.92	
Indianapolis, New Castle & Toledo Electric Railway Co.	42.00				2.90	44.90		44.90	
Indiana Union Traction Co.	58.58		303.21		6.32	368.11		368.11	
Kokomo, Marion & Western Traction Co.	27.30					27.30		27.30	
Lafayette-Tipton Traction Co.	9.34					10.00		10.00	
Louisville & Northern Railway & Lighting Co.	16.38				66	18.48		25.41	
Louisville & Southern Indiana Traction Co.	12.12		8.89		2.10	21.01		23.95	
Marion, Bluffton & Eastern Traction Co.	31.74					31.74		31.74	
Muncie & Portland Traction Co.	30.59				1.10	31.69		31.69	
Ohio Electric Railway Co.			22.36			25.45		599.90	
Southern Michigan Railway Co.	5.05				3.09	5.79		32.37	
Terre Haute, Indianapolis & Eastern Traction Co.	153.93				.74	372.82		383.45	
Toledo & Chicago Interurban Railway Co.	41.73		199.23		19.66	42.95		42.95	
Winona Interurban Railway Co.	72.16		3.13		1.22	75.29	48.82	75.29	
Total	1,302.26		591.58	16.32	45.19	1,958.36	61.63	2,601.07	

ELECTRIC ROADS—TABLE No. 1—Continued.

ROADS LEASED OR OTHERWISE ASSIGNED FOR OPERATION, WHOSE MILEAGE IS INCLUDED IN THE ABOVE REPORT.

NON-OPERATING LINES.	Entire Line. Single Track.	State of Indiana. Single Track.	NAME OF LESSEE.
Fort Wayne, Van Wert & Lima Traction Co.	59.74	20.50	The Ohio Electric Railway Co.
Indianapolis & Martinsville Rapid Transit Co.	27.14	27.14	Terre Haute, Indianapolis & Eastern Traction Co.
Indianapolis & Northwestern Traction Co.	86.07	86.07	Terre Haute, Indianapolis & Eastern Traction Co.
Muncie, Hartford & Ft. Wayne Railway Co.	44.27	44.27	Indiana Union Traction Co.
Terre Haute Traction & Light Co.	86.02	86.02	Terre Haute, Indianapolis & Eastern Traction Co.
Union Traction Co. of Indiana.	260.04	260.04	Indiana Union Traction Co.
Total	563.28	524.04	

ELECTRIC ROADS—TABLE No. 2.
CAPITAL STOCK.

OPERATING ROADS.	Number of Shares Authorized.	Par Value of Each Share.	Total Par Value Issued and Outstanding.	DIVIDEND DECLARED DURING YEAR.	
				Rate.	Amount.
Angola Railway & Power Co.	\$1,000		\$96,900		
Bluffton, Geneva & Celina Traction Co.	6,750	100	675,000	5¢ on \$71,000	\$1,755 60
Chicago Lake Shore & South Bend Railway Co.	60,000	100	6,000,000		
Chicago-New York Electric Air Line Railroad Co.	480,000	25	5,985,550		
Chicago, South Bend & Northern Indiana Railway Co.	75,000	100	7,500,000		
Cincinnati, Lawrenceburg & Aurora Electric Street Railroad Co.	10,000	100	808,900		
Evansville & Southern Indiana Traction Co.	15,000	100	962,200		
Evansville & Southern Indiana Traction Co.	45,000	100	300,000	12¢ on \$1,000,000	120,000 00
Evansville Suburban & Newburgh Railway Co.	5,000	100	307,400		
Ft. Wayne & Northern Indiana Traction Co. (Prior to February 25, 1911, known as Ft. Wayne & Wabash Valley Traction Co.)	65,000	100	6,500,000	6¢	43,080 00
Ft. Wayne & Springfield Railway Co.	10,000	100	676,300		
Gary & Interurban Railway Co.	40,000	25	885,150	3¢	26,554 50
Indianapolis & Cincinnati Traction Co.	30,000	100	2,999,100	12¢	5,000 00
Indianapolis, Columbus & Southern Traction Co.	10,000	100	910,000		
Indianapolis, Crawfordsville & Western Traction Co.	30,000	100	1,500,000		
Indianapolis & Louisville Traction Co.	30,000	100	2,600,000		
Indianapolis, New Castle & Toledo Electric Railway Co. (Receivership)					
Indiana Union Traction Co.	50,000	100	4,990,000		
Indiana, Marion & Western Traction Co.	11,000	100	1,100,000		36,000 00
Kokomo, Marion & Western Traction Co.	1,500	100	150,000		
Lafayette-Thorntown Traction Co.	500,000	10	4,417,130		12,810 94
Louisville & Northern Railway & Lighting Co.	300,000	10	2,435,080		7,389 58
Louisville & Southern Indiana Traction Co.	8,500	100	850,000		
Marion, Bluffton & Eastern Traction Co.	10,000	100	1,000,000	4 1/2¢	45,000 00
Muncie & Portland Traction Co.	250,000	100	16,000,000		
Ohio Electric Railway Co.	20,000	100	2,000,000		
Southern Michigan Railway Co.	257,000	100	18,200,000	5¢ on \$9,100,000	455,000 00
Terre Haute, Indianapolis & Eastern Traction Co.	12,500	100	1,247,500	6¢ on \$150,775	4,499 25
Toledo & Chicago Interurban Railway Co.			166,775		
Wisconsin Interurban Railway Co.					
Total	\$2,339,206		\$91,262,985		\$757,089 87

NON-OPERATING ROADS.

Ft. Wayne, Van Wert & Lima Traction Co.....	\$20,000	\$100	\$2,000,000	5¢ on \$1,000,000	\$50,000 00
Indianapolis & Martinsville Rapid Transit Co.....	7,500	100	750,000	5¢ on \$450,000	22,500 00
Indianapolis & Northwestern Traction Co.....	35,500	100	3,000,000	5¢ on \$500,000	25,000 00
Muncie, Hartford & Ft. Wayne Railway Co.....	10,000	100	1,000,000		118,700 00
Terre Haute Traction & Light Co.....	30,000	100	2,645,000		215,000 00
Union Traction Co. of Indiana.....	85,000	100	8,500,000		
Total.....	\$188,000		\$17,895,000		\$431,200 00

ELECTRIC ROADS—TABLE No. 3.

FUNDED DEBT.

OPERATING ROADS.	Total Par Value Authorized.	Total Par Value Outstanding.	TOTAL PAR VALUE HELD BY RESPONDENT CORPORATION.		Total Par Value Not Held by Respondent Corporation.	INTEREST.	
			In Treasury.	In Other Funds.		Amount Accrued During Year.	Amount Paid During Year.
Angola Railway & Power Co.	\$100,000	\$94,750	\$5,250		\$94,750	\$3,947 90	
Bluffton, Geneva & Celina Traction Co. (No funded debt)							
Chicago, Lake Shore & South Bend Railway Co.	6,350,000	4,053,000	2,197,000		4,053,000	200,686 14	\$18,000 00
Chicago-New York Electric Air Line Railroad Co. (No funded debt)							
Chicago, South Bend & Northern Indiana Railway Co.	10,500,000	4,430,000	2,691,000	\$77,000	4,353,000	221,762 50	221,762 50
Cincinnati, Lawrenceburg & Aurora Electric Street Railroad Co.	750,000	1,326,700	270,800		750,000	37,500 00	37,500 00
Evansville Railways Co.	1,600,000	1,326,700				64,038 87	63,712 48
Evansville & Southern Indiana Traction Co.	5,600,000	2,682,000	2,878,000	40,000	2,682,000	119,425 00	119,550 00
Evansville Suburban & Newburgh Railway Co.	500,000	497,500			497,500	24,875 00	24,875 00
Fort Wayne & Northern Indiana Traction Co. (Prior to February 25, 1911, known as Fort Wayne & Wabash Valley Traction Co.)	26,475,000	9,836,000					
Fort Wayne & Springfield Railway Co.	1,300,000	*	*	*	9,828,000	451,593 32	439,160 00
Gary & Interurban Railway Co.	1,500,000	1,023,500				30,017 34	28,433 01
Indianapolis & Cincinnati Traction Co.	5,850,000	2,300,000	300,000			115,000 00	114,975 00
Indianapolis, Columbus & Southern Traction Co.	1,000,000	932,000	150,000		782,000		39,100 00
Indianapolis, Crawfordsville & Western Traction Co. (Receivership; data not furnished)							
Indianapolis & Louisville Traction Co.	1,650,000	1,647,000	3,000			80,500 00	28,500 00
Indianapolis, New Castle & Toledo Electric Railway Co. (Not reported)							
Indiana Union Traction Co.	6,425,000	3,045,000	563,000		2,482,000	124,012 50	124,012 50
Kokomo, Marion & Western Traction Co.	1,019,250	1,000,000			1,019,250	51,155 00	51,155 00
Lebanon-Thorntown Traction Co.	150,000	150,000			150,000	7,500 00	7,125 00
Louisville & Northern Railway & Lighting Co.	3,000,000	877,300	2,043,000		834,000	25,000 00	25,000 00
Louisville & Southern Indiana Traction Co.	1,250,000	1,250,000			1,250,000	62,500 00	62,500 00
Marion, Bluffton & Eastern Traction Co.	850,000	720,000				36,000 00	36,000 00
Muncie & Portland Traction Co.	1,000,000	900,000	900,000				
Ohio Electric Railway Co.	17,950,000	5,450,000			5,450,000	255,392 56	272,250 00
Southern Michigan Railway Co.	2,750,000	1,150,000			1,123,000	57,500 00	57,500 00
Terre Haute, Indianapolis & Eastern Traction Co.	9,300,000	7,500,000	1,590,000	37,000	7,479,000	297,025 00	297,025 00
Toledo & Chicago Interurban Railway Co.	1,250,000	1,250,000		21,000		62,500 00	62,500 00
Wmoma Interurban Railway Co.	2,345,700	2,216,885	1,363,900			129,535 88	102,346 72
Total	\$110,462,850	\$55,063,335	\$14,954,950	\$175,000	\$42,817,500	\$2,457,467 01	\$2,232,982 21

NON-OPERATING ROADS.

Fort Wayne, Van Wert & Lima Traction Co.	\$2,000,000	\$1,470,000	\$1,470,000	†	\$37,500 00
Indianapolis & Martinsville Rapid Transit Co.	750,000	750,000	750,000	123,500 00
Indianapolis & Northwestern Traction Co.	3,000,000	2,470,000	2,470,000	48,425 00
Muncie, Harford & Fort Wayne Railway Co.	1,000,000	967,000	967,000	229,150 00
Terre Haute Traction & Light Co.	5,000,000	4,583,000	4,583,000	521,130 50
Union Traction Co. of Indiana	11,200,000	10,199,000	10,199,000
Total	\$22,950,000	\$20,439,000	\$128,000	\$20,439,000	\$959,705 50

*Correct information not furnished.

†Interest paid by Lessor; amount not furnished.

ELECTRIC ROADS—TABLE No. 4.

RECAPITULATION OF CAPITALIZATION.

OPERATING ROADS.	Capital Stock.	Funded Debt.	Total.	AMOUNT PER MILE OF ROAD.	
				Miles.	Amount.
Anacola Railway & Power Co.	\$86,400	\$94,750	\$191,650	3.85	...
Bluffton, Geneva & Celina Traction Co.	675,000	...	675,000	17.89	\$33,325 00
Chicago, Lake Shore & South Bend Railway Co.	6,000,000	4,053,000	10,053,000	81.54	123,289 19
Chicago-New York Electric Air Line Railroad Co.	5,946,150	...	5,946,150	20.00	297,307 00
Chicago, South Bend & Northern Indiana Railway Co.	7,500,000	4,430,000	11,930,000	110.88	108,134 91
Cincinnati, Lawrenceburg & Aurora Electric Street Railroad Co.	808,900	750,000	1,558,900	39.39	39,576 02
Evansville Railways Co.	962,200	1,526,700	2,288,900	54.76	56,610 00
Evansville & Southern Indiana Traction Co.	3,000,000	2,682,000	5,682,000	66.02	86,051 79
Evansville Suburban & Newburgh Railway Co.	307,400	497,500	804,900	24.67	32,626 00
Fort Wayne & Northern Indiana Traction Co. (Prior to February 25, 1911, known as Fort Wayne & Wabash Valley Traction Co.)	6,500,000	9,021,000	16,421,000	220.44	74,491 92
Fort Wayne & Spingfield Railway Co.	676,500	191,000	867,500	21.85	39,693 00
Gary & Interurban Railway Co.	885,150	1,023,500	1,908,650	22.00	87,756 82
Indianapolis & Cincinnati Traction Co.	2,399,100	2,300,000	5,299,100	101.36	52,279 80
Indianapolis, Columbus & Southern Traction Co.	910,000	532,000	1,842,000	58.17	31,665 80
Indianapolis, Crawfordsville & Western Traction Co. (Receivership; data not furnished)
Indianapolis & Louisville Traction Co.	2,602,000	1,647,000	4,247,000	40.02	103,773 46
Indianapolis, New Castle & Toledo Electric Railway Co. (Not reported)
Indiana Union Traction Co.	4,900,000	3,045,000	8,025,000	58.58	137,163 00
Kokomo, Marion & Western Traction Co.	1,100,000	1,019,250	2,119,250
Lafayette-Theriotown Traction Co.	150,000	150,000	300,000	9.34	32,120 00
Louisville & Northern Railway & Lighting Co.	4,417,130	877,000	5,294,130	16.38	323,206 05
Louisville & Southern Indiana Traction Co.	2,435,080	1,000,000	3,435,080	12.23	280,873 00
Marion, Bluffton & Eastern Traction Co.	720,000	880,000	1,570,000	31.74	49,464 39
Monroe & Portland Traction Co.	1,000,000	...	1,000,000	30.59	32,690 00
Ohio Electric Railway Co.	16,000,000	5,724,000	21,724,000	590.58	36,784 00
Southern Michigan Railway Co.	2,000,000	1,150,000	3,150,000	32.37	97,312 32
Terre Haute, Indianapolis & Eastern Traction Co.	18,200,000	7,479,000	25,679,000	153.03	166,822 58
Toledo & Chicago Interurban Railway Co. (Receivership; data not furnished)
Winona Interurban Railway Co.	166,775	2,216,885	2,383,660	72.16	33,032 99
Total	\$91,046,085	\$53,359,585	\$144,405,670	1,891.05	\$2,356,049.04

NON-OPERATING ROADS.

Fort Wayne, Van Wert & Lima Traction Co.....	\$2,000,000	\$1,470,000	\$3,470,000	59.74	\$58,085.00
Indianapolis & Martinsville Rapid Transit Co.....	750,000	750,000	1,500,000	27.14	55,269.00
Indianapolis & Northwestern Traction Co.....	3,000,000	2,470,000	5,470,000	86.07	63,552.00
Muncie, Hartford & Fort Wayne Railway Co.....	1,000,000	967,000	1,967,000	44.27	44,431.89
Terre Haute Traction & Light Co.....	2,645,000	4,583,000	7,228,000	86.02	*
Union Traction Co. of Indiana.....	8,500,000	10,199,000	18,699,000	260.04	71,907.00
Total.....	\$17,895,000	\$20,439,000	\$38,334,000	563.28	\$293,244.89

* Other property included. † In treasury.

ELECTRIC ROADS—TABLE No. 5.

INCOME ACCOUNT—FROM OPERATION.

OPERATING ROADS.	Deficit from Operating.	Income from Operating After Deducting Operating Expenses.	Income from Dividends and Interest on Stocks and Bonds Owned and from Other Sources.	Total Income.	Deductions from Income Account of Interest, Divi- dends, Taxes, and Other Payments.	Net Income.	Total Deficit.
Angola Railway & Power Co.		\$5,958 48		\$5,958 48	\$3,947 90	\$1,488 96	\$426 16
Bluffton, Geneva & China Traction Co.		1,369 90		1,369 90	1,796 06		217,738 77
Chicago, Lake Shore & South Bend Railway Co.		46,287 94		46,287 94	264,026 71		12,016 40
Chicago-New York Electric Air Line Railroad Co.	\$9,645 38				2,371 02		
Chicago, South Bend & Northern Indiana Railway Co.		354,170 84	\$609 49	354,780 33	247,091 58	107,688 75	
Cincinnati, Lawrenceburg & Aurora Electric Street Railroad Co.		55,746 52		55,746 52	43,777 40	11,969 12	
Cincinnati, Lawrencburg & Aurora Electric Street Railroad Co.		88,345 67		88,345 67	93,220 62		4,874 95
Evansville Railways Co.		180,018 09	187 83	180,205 92	261,800 91		81,594 99
Evansville & Southern Indiana Traction Co.		47,167 98	1,282 62	48,450 60	30,055 79	18,394 81	
Evansville Suburban & Newburgh Railway Co.							
Fort Wayne & Northern Indiana Traction Co. (Prior to February 25, 1911 known as Fort Wayne & Wabash Valley Traction Co.)		537,697 61	163,211 81	700,909 42	589,458 48	111,450 94	
Fort Wayne & Springfield Railway Co.		16,828 39		16,828 39	9,082 70	7,745 69	
Gary & Interurban Railway Co.		53,787 46	57 17	53,844 63	55,102 06		1,257 43
Indianapolis & Cincinnati Traction Co. (Incomplete data).							
Indianapolis, Columbus & Southern Traction Co.		197,865 32		197,865 32	75,628 27	122,237 05	
Indianapolis, Crawfordsville & Western Traction Co.		47,044 61		47,044 61	5,578 48	41,426 13	
Indianapolis & Louisville Traction Co.		52,929 43	231 93	53,161 36	88,821 64		35,660 28
Indianapolis, New Castle & Toledo Electric Railway Co.		59,365 78		59,365 78			
Indiana Union Traction Co.		1,080,539 56	3,064 82	1,083,604 38	1,036,353 19	47,251 19	
Kokomo, Marion & Western Traction Co.		52,982 77	95,465 76	148,448 53	116,441 16	32,037 37	
Lebanon-Thorntown Traction Co.		6,874 11		6,874 11	8,095 46		1,221 35
Louisville & Northern Railway & Lighting Co.	12,315 43		58,096 63	45,781 50	45,727 82	53 68	
Louisville & Southern Indiana Traction Co.		66,361 22	18,919 87	85,281 09	84,796 30	493 79	
Marion Bluffton & Eastern Traction Co.		42,123 68	1,867 40	43,991 08	43,637 16	353 92	
Muncie & Portland Traction Co.		56,825 24		56,825 24	50,757 35	6,067 89	
Ohio Electric Railway Co.		1,399,706 08	174,168 24	1,573,874 32	1,572,287 27	1,587 65	
Southern Michigan Railway Co.		87,164 57		87,203 29	69,147 25	18,056 04	
Terre Haute, Indianapolis & Eastern Traction Co.		982,124 49	456,763 58	1,438,888 07	1,406,415 62	32,472 45	
Toledo & Chicago Interurban Railway Co.		36,074 78		36,074 68	14,564 06	21,510 62	
Waukena Interurban Railway Co.		64,714 35	84,716 35	149,430 70	150,253 82		563 33
Total	\$21,960 51	\$5,620,075 47	\$1,058,682 22	\$6,666,442 46	\$6,370,236 08	\$582,286 05	\$355,358 66

INCOME ACCOUNT.

OPERATING ROADS.	Surplus from Operation. Year Ending June 30, 1911.	Deficit from Operation. Year Ending June 30, 1911.	Surplus on June 30, 1910.	Deficit on June 30, 1910.	Credits for the Year.	Debits for the Year.	Surplus on June 30, 1911.	Deficit on June 30, 1911.
Angola Railway & Power Co.	\$1,488 96	\$426 16		\$7,366 97				\$5,878 01
Bluffton, Geneva & Colina Traction Co.		217,738 77		226,375 88		\$25,657 55		426 16
Chicago, Lake Shore & South Bend Railway Co.		12,016 40				76		489,772 20
Chicago-New York Electric Air Railroad Co.			\$281,261 16		\$2,624 33		\$301,574 24	
Chicago, South Bend & Northern Indiana Railway Co.	107,688 75	4,874 95	7,554 71	3,215 53	(Correct infor	mation not fu		
Cincinnati, Lawrenceburg & Aurora Electric Street Railroad Co.	11,969 12	81,594 99		19,699 38	120,000 00	6,325 00	18,705 63	8,090 46
Cincinnati Railways Co.			15,799 26				12,652 56	
Evansville & Southern Indiana Traction Co.	3,178 30						111,450 94	
Evansville Suburban & Newburgh Railway Co.							15,006 64	
Fort Wayne & Northern Indiana Traction Co.	111,450 94						701,866 83	
Fort Wayne & Springfield Railway Co. (Prior to February 25, 1911, known as Fort Wayne & Wabash Valley Traction Co.)							166,072 95	
Fort Wayne & Springfield Railway Co. (Nothing reported.)							152,274 30	
Gary & Interurban Railway Co.	1,257 43		16,256 77			879 79	387,299 01	
Indianapolis & Cincinnati Traction Co. (Not reported.)	122,237 05		579,629 78			11,535 51	223,094 13	663 10
Indianapolis, Columbus & Southern Traction Co.	41,426 13		124,646 22			2,351 73	32,080 39	
Indianapolis, Crawfordsville & Western Traction Co.		35,660 28		115,734 23			2,561 06	
Indianapolis & Louisville Traction Co.							4,213 68	
Indianapolis, New Castle & Toledo Electric Railway Co.	997 43						66,334 26	
Indiana Union Traction Co.	47,251 19		328,512 31				23,786 95	341,904 99
Kokomo, Marion & Western Traction Co.	32,037 37		183,318 49				526,180 16	
Lebanon-Thornstown Traction Co.		1,221 35	558 25				48,618 78	
Louisville & Northern Railway & Lighting Co.	53 68		32,026 71				10,807 33	
Louisville & Southern Indiana Traction Co.	493 79		2,067 27					
Marietta, Bluffton & Eastern Traction Co.		353 92	4,510 37					
Muncie & Portland Traction Co.	6,067 89		60,266 37	343,492 64				
Ohio Electric Railway Co.	1,587 65		2,980 54					
Southern Michigan Railway Co.	18,056 04		482,359 30		11,348 41	2,750 37		
Terre Haute, Indianapolis & Eastern Traction Co.	32,472 45		27,108 16	9,984 21		254 79		
Toledo & Chicago Interurban Railway Co.	21,510 62	568 33						
Winona Interurban Railway Co.								
Total	\$561,224 79	\$354,455 15	\$2,158,855 67	\$725,868 84	\$133,972 74	\$49,762 80	\$2,894,489 24	\$826,734 92

ELECTRIC ROADS—TABLE No. 6.

RENTALS RECEIVED AND OTHER MISCELLANEOUS INCOME.

OPERATING ROADS.		Rents on Trackage and Terminals.	Interest on Current Funds.	Rents of Buildings and Land.	Income from Power Sold, Net.	Income from Lighting Service, Net.	Income from Advertising and Other Sources.	Total Amount.
Angola Railway & Power Co.								
Bluffton, Geneva & Celina Traction Co.				\$88 00	\$68 15			\$106 15
Chicago, Lake Shore & South Bend Railway Co.				499 07	3,750 19		\$3,205 30	4,280 26
Chicago-New York Electric Air Line Railroad Co.				273 30				273 30
Chicago, South Bend & Northern Indiana Railway Co.		\$15,064 94		785 25			4,161 22	20,001 41
Cincinnati, Lawrenceburg & Aurora Electric Street Railroad Co.					102 00		733 21	835 21
Evansville Railways Co.				424 70	108 14		192,253 39	192,786 23
Evansville & Southern Indiana Traction Co.		14,487 08	\$344 58	1,673 26	2,829 08		1,991 22	20,980 64
Evansville Suburban & Newburgh Railway Co.				938 04				1,282 62
Ft. Wayne & Northern Indiana Traction Co. (Prior to February 25, 1911, known as Ft. Wayne & Wabash Valley Traction Co.)		37,604 97	1,091 77	3,865 41	24,523 32	\$162,120 04	5,757 92	234,963 43
Ft. Wayne & Springfield Railway Co. (Not reported)								
Gary & Interurban Railway Co.								
Indianapolis & Cincinnati Traction Co.			322 17	86 50			329 99	329 99
Indianapolis, Columbus & Southern Traction Co.		675 00					1,586 16	1,586 16
Indianapolis, Crawfordsville & Western Traction Co.		11 30		480 00	988 20		768 65	1,443 65
Indianapolis & Louisville Traction Co.			231 93		785 20		433 20	1,482 59
Indianapolis, New Castle & Toledo Electric Railway Co.				120 00	145 00		424 00	1,441 13
Indiana Union Traction Co.		12,679 90	1,038 93	5,621 15	26,627 54		6 30	271 30
Kokomo, Marion & Western Traction Co.				762 43	592 50		3,521 28	49,488 80
Lebanon-Thorntown Traction Co. (Not reported)							1,020 74	2,375 67
Louisville & Northern Railway & Lighting Co.		247 17		1,715 44		2,437 63		38,642 58
Louisville & Southern Indiana Traction Co.		5,250 00		10,023 86			32,584 04	47,867 90
Marion, Bluffton & Eastern Traction Co.					1,867 40		474 41	2,341 81
Muncie & Portland Traction Co. (Reported no income)			7,968 82	4,693 55				
Ohio Electric Railway Co.				213 92	7 00		13,266 23	174,168 24
Southern Michigan Railway Co.				829 93	204,097 15		58 58	279 50
Terre Haute, Indianapolis & Eastern Traction Co.		7,192 27	6,726 43	55 50			13,204 78	232,050 56
Toledo & Chicago Interurban Railway Co.					1,804 03		332 39	2,101 92
Winona Interurban Railway Co.					838 18		355 85	1,194 03
Total		\$93,212 63	\$17,724 63	\$33,109 51	\$269 173 08	\$312,797 31	\$310,312 53	\$1,033,184 28

ELECTRIC ROADS—TABLE No. 7.

OPERATING REVENUES.

OPERATING ROADS.	Total Revenue from Passenger Service.	Total Revenue from Baggage and Special Car Service.	Total Revenue from Mail Service.	Total Revenue from Express Service.	Total Revenue from Milk Service.	Total Revenue from Freight Service.	Total Revenue from Switching and Mis- cellaneous Service.	Total Revenue from Transporta- tion.	Total Revenue from Operation Other Than Transporta- tion.	Total Operating Revenues.
Angola Railway & Power Co.	\$5,219 80			\$409 98	\$165 33	\$316 70		\$5,536 50	\$16,076 97	\$21,613 47
Bluffton, Geneva & Celina Trac. Co.	6,520 78	\$154 51				1,831 85	\$35 54	9,117 99	38 00	9,155 99
Chicago, Lake Shore & South Bend Railway Co.	319,006 51	657 07		8,558 09	2,868 97	45 00		331,135 64	7,494 56	338,630 20
Chicago-New York Electric Air Line Railroad Co.	12,174 69	29 00		165 30		144 80	732 37	13,237 16	380 16	13,617 32
Chicago, South Bend & Northern In- diana Railway Co.	739,855 11	6,359 56	\$32 50	6,881 58	1,536 96	27,806 65		782,502 36	20,001 41	802,503 77
Cincinnati, Lawrenceburg & Aurora Electric Street Railway Co.	133,495 41	276 75			475 64	42,084 79	546 00	134,318 16	835 21	135,153 37
Evansville Railways Co.	142,279 64	1,825 51	1,508 34	3,011 71			420 57	191,606 20	1,180 03	192,786 23
Evansville & Southern Indiana Trac Co.	402,365 26	654 20		843 22	1,514 10	12,846 02		418,222 80	20,980 64	439,203 44
Evansville, Suburban & Newburgh Railway Co.	79,345 14						38,774 21	118,119 35	1,282 62	119,401 97
Ft. Wayne & Northern Indiana Trac. Co. (Prior to Feb. 25, 1911, known as Ft. Wayne & Wabash Valley Traction Co.)	1,117,125 55	6,495 73	349 07	16,135 05	1,791 23	62,899 44	241 00	1,205,037 07	72,843 39	1,277,880 46
Ft. Wayne & Springfield Railway Co.	46,972 71	598 13		2,274 32	2,813 17	4,956 29	54 00	57,668 62	1,463 29	59,131 91
Gary & Interurban Railway Co.	130,309 15	75 00					1,301 25	131,685 40	329 99	132,015 39
Indianapolis & Cincinnati Trac. Co.	382,686 43	3,393 55	370 81	12,020 46	7,101 08	39,039 61		444,611 94	981 83	445,593 77
Indianapolis, Columbus & Southern Traction Co.	388,128 46	3,347 98	139 97	1,357 39	2,546 77	29,519 50	9 00	425,059 07	1,443 65	426,502 72
Indianapolis, Crawfordsville & West- ern Traction Co.	158,188 44	1,021 23		5,156 57	1,247 76	18,544 99		184,158 99	1,982 59	186,141 58
Indianapolis & Louisville Traction Co.	114,095 73	331 98			326 33	10,968 23		125,722 27	3,805 66	129,527 93
Indianapolis, New Castle & Toledo Electric Railway Co.	127,890 54	456 86		4,856 34		15,962 42	755 52	149,901 68	271 30	150,172 98
Indiana Union Traction Co.	1,965,951 88	16,912 12	819 66	34,588 32	14,794 28	230,385 60		2,263,451 86	58,784 72	2,322,236 58

ELECTRIC ROADS—TABLE No. 7—Continued.

OPERATING ROADS.	Total Revenue from Passenger Service.	Total Revenue from Baggage and Special Car Service.	Total Revenue from Mail Service.	Total Revenue from Express Service.	Total Revenue from Milk Service.	Total Revenue from Freight Service.	Total Revenue from Switching and Mis- cellaneous Service.	Total Revenue from Transporta- tion.	Total Operating Revenues.
Kokomo, Marion & Western Trac. Co.	\$82,830 32	\$840 22	\$175 00	\$2,635 26	\$232 45	\$8,299 76	\$1,476 01	\$96,489 01	\$98,864 68
Lebanon-Thorntown Traction Co.								15,585 15	15,585 15
Louisville & Northern Railway & Lighting Co.	141,707 39	372 32			587 41	10,545 00		153,212 12	158,417 07
Louisville & Southern Indiana Traction Co.	246,866 20					18,429 36		265,295 56	294,243 59
Marion, Bluffton & Eastern Traction Co.	81,225 95	2,451 45		1,514 00	536 09	9,170 30	936 00	95,833 79	97,636 59
Muncie & Portland Traction Co.	97,917 88	1,186 38		5,259 39	799 50	10,200 33	Loss	115,345 08	115,433 16
Ohio Electric Railway Co.	2,774,067 28	17,251 77	4,403 86	66,841 69	25,573 43	288,359 71	2,534 45	3,179,032 19	3,213,696 98
Southern Michigan Railway Co.	178,168 29	1,000 30	1,118 27	2,519 34	334 51	14,940 51		198,081 22	199,233 91
Terre Haute, Indianapolis & Eastern Traction Co.	2,076,469 92	12,132 27	882 84	84,086 89	24,790 42	147,970 85	1,114 18	2,347,447 10	2,368,674 08
Toledo & Chicago Interurban Ry. Co.	2,140,995 13	1,470 01		5,115 18	847 21	13,393 82	456 25	162,280 60	164,426 87
Winona Interurban Railway Co.	174,506 48	2,071 93	28 78	8,275 71	1,000 41	9,945 47	548 15	196,376 03	200,416 25
Total	\$12,266,376 07	\$81,357 33	\$9,859 10	\$272,505 79	\$91,883 65	\$1,028,607 00	\$49,914 50	\$13,816,071 81	\$14,127,805 41

ELECTRIC ROADS—TABLE No. 8.

OPERATING EXPENSES.

OPERATING ROADS.								
Maintenance of Way and Structures.	Maintenance of Equipment.	Traffic Expenses.	Transportation Expenses.	General Expenses.	Grand Total.	Percentage of Expenses to Earnings, Entire Line.		
Angola Railway & Power Co. (Includes lighting, power and water works departments).								
\$618 21	\$1 823 50	\$162 83	\$8,642 47	\$4,407 98	\$15,654 99	72.43		
944 19	399 41	65 85	5,563 67	881 12	7,854 24	84.25		
37,608 09	44,700 05	5,161 72	157,560 14	47,312 26	292,342 26	86.33		
675 88	3,122 69	252 13	16,843 62	2,368 38	23,262 70	170.00		
39,747 57	57,109 55	5,618 69	301,879 75	43,977 37	448,332 03	55.86		
18,542 14	9,622 70	37,795 14	13,416 62	79,406 85	58.75			
9,215 84	9,682 34	30 25	52,624 75	30,685 86	104,440 56	54.00		
34,974 08	38,734 56	2,478 79	154,426 93	28,570 99	259,185 35	59.00		
14,005 13	4,659 47	43,876 07	8,410 70	70,951 37	60.00		
known as Ft. Wayne & Wabash Valley Traction Co.).								
112,222 84	99,002 97	10,493 64	423,021 62	94,550 01	739,091 08	57.62		
2,441 24	5,235 52	403 32	21,709 80	14,428 56	44,218 44	71.77		
5,384 01	3,039 76	130 45	60,588 33	7,065 38	78,227 63	59.23		
45,071 77	49,203 40	3,562 73	116,166 43	61,038 28	275,042 61	61.72		
37,280 90	30,256 41	1,119 38	102,363 94	57,616 77	228,637 40		
18,411 85	35,538 28	1,557 79	54,199 21	29,429 84	139,136 97	74.74		
12,742 23	6,665 64	3,343 57	37,876 99	15,970 07	76,598 50	59.02		
10,375 54	8,535 18	1,473 06	53,252 68	17,170 74	90,807 20	60.05		
217,459 11	159,888 31	8,745 94	582,286 57	273,317 09	1,241,697 02	53.47		
3,658 99	4,847 04	878 66	31,741 96	4,755 26	45,881 91	46.40		
1,627 10	1,349 02	5,261 44	473 48	8,711 04	55.89		
5,587 54	10,882 05	969 12	77,049 49	76,244 00	170,732 20	107.00		
12,340 11	15,863 27	1,454 87	121,722 94	76,501 18	227,882 97	77.00		
8,415 15	4,078 12	989 84	35,380 00	55,512 91	56.85			
7,935 87	3,824 81	748 20	30,267 96	158,845 02	58,607 92	50.77		
314,322 72	216,995 55	26,138 23	1,058,287 98	198,245 82	1,813,990 30	56.45		
9,519 83	13,622 36	817 64	58,315 84	29,793 67	112,069 34	56.25		
232,439 85	178,466 03	14,236 05	678,699 02	282,708 64	1,386,549 59	58.54		
16,334 60	25,421 57	1,773 55	60,498 23	22,324 19	126,352 14	76.09		
27,346 96	12,341 42	2,777 00	70,352 69	22,883 83	133,701 90	67.07		
\$1,257,249 04	\$1,056,930 98	\$97,615 06	\$4,458,255 66	\$1,486,840 99	\$8,356,976 01	68.09		

ELECTRIC ROADS—TABLE No. 9.

MILEAGE, TRAFFIC AND MISCELLANEOUS STATISTICS.

OPERATING ROADS.		Total Car Mileage.	Total Passengers Carried.	Average Fares, All Passengers.	Revenue From Transporta- tion Per Car Mile.	Revenue From Operation Other Than Transporta- tion Per Car Mile	Operating Revenues Per Car Mile.	Operating Expenses Per Car Mile.
Angola Railway & Power Co.		47,737	41,758	\$0.1250	80.1910	80.0007	80.1917	80.1000
Bluffton, Geneva & Celina Traction Co.		1,225,085	42,754	.1256	2745	.0051	2764	193.2
Chicago, Lake Shore & South Bend Railroad Co.			2,542,206	1255				
Chicago-New York Electric Air Line Railroad Co.			94,499	1278				
Chicago, South Bend & Northern Indiana Railway Co.		2,925,069	12,163,880	.0600	2670	.0080	2730	1530
Cincinnati, Lawrenceburg & Aurora Electric Street Railroad Co.		587,054	1,407,506	.0909	2288	.0014	2502	1532
Evansville Railways Co.		692,946	755,680	.1870	2760	.0017	2777	1500
Evansville & Southern Indiana Traction Co.		1,883,814	9,655,490	.0417	2221	.0111	2332	1376
Evansville Suburban & Newburgh Railway Co.		342,254	507,855	.1560	5400	.0030	3430	2700
Fort Wayne & Northern Indiana Traction Co. (Prior to February 25, 1911, known as Fort Wayne & Wabash Valley Traction Co.)		5,072,240	19,559,575	.0570	2580	.0140	2520	1457
Fort Wayne & Springfield Railway Co.		197,375	196,481	.2400	3400	.0000	3400	2500
Gary & Interurban Railway Co.		542,617	3,054,266	.0426	2427	.0006	2433	1442
Indianapolis & Cincinnati Traction Co.		1,578,314	1,506,557	.2739	2817	.0006	2824	1743
Indianapolis, Columbus & Southern Traction Co.		1,169,156	1,623,754	.2306	5655	.0012	3647	1955
Indianapolis, Crawfordville & Western Traction Co.		607,275	602,927	.2386	2082	.0053	3065	2291
Indianapolis & Louisville Traction Co.		642,983	731,534	.1550	1950	.0000	2010	1180
Indianapolis, New Castle & Toledo Electric Railway Co.		590,203	482,514	.2650	2540	.0005	2545	1540
Indiana Union Traction Co.		6,950,602	15,693,674	.1256	3256	.0085	3338	1786
Kokomo, Marion & Western Traction Co.		387,166	586,346	.1410	2040	.0030	2090	1180
Lafayette-Thorntown Traction Co.		21,849	100,966	.1543	2169	.0000	2169	1212
Louisville & Northern Railway & Lighting Co.		432,507	2,248,753	.0830	3542	.0120	3662	5947
Louisville & Southern Indiana Traction Co.		1,190,119	5,592,299	.0444	2230	.0243	2473	1914
Marion, Bluffton & Eastern Traction Co.		347,064	491,538	.1630	2761	.0031	2811	1509
Muncie & Portland Traction Co.		333,784	503,741	.1945	3560	.0002	3562	1809
Ohio Electric Railway Co.		12,130,803	26,956,152	.1029	2620	.0020	2649	1553
Southern Michigan Railway Co.		573,499	963,788	.1849	3454	.0020	3474	1954
Terre Haute, Indianapolis & Eastern Traction Co.		7,436,536	21,642,770	.0959	3156	.0029	3185	1864
Toledo & Chicago Interurban Railway Co.		770,517	1,160,179	.2839	2839	.0038	2877	2200
Winona Interurban Railway Co.				.1500	2550	.0052	2602	1760
		49,200,161	130,809,422	.1479	2752	.0044	2800	1805

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ELECTRIC ROADS—TABLE No. 10.

DESCRIPTION OF EQUIPMENT.

OPERATING ROADS.	PASSENGER CARS.		FREIGHT CARS.		MAIL, BAGGAGE AND EXPRESS CARS.		ALL OTHER CARS.		Total Cars Electrically Equipped.	Total Cars Not Electrically Equipped.	Total Cars All.
	Electrically Equipped.	Not Electrically Equipped.	Electrically Equipped.	Not Electrically Equipped.	Electrically Equipped.	Not Electrically Equipped.	Electrically Equipped.	Not Electrically Equipped.			
Angola Railway & Power Co.	2	1		1					2	2	4
Bluffton, Geneva & Celina Traction Co.	1								2	5	7
Chicago, Lake Shore & South Bend Railroad Co.	24	13							26	46	72
Chicago-New York Electric Air Line Railroad Co.	2	3					1	53	2	3	5
Chicago, South Bend & Northern Indiana Railway Co.	12		3	1			9	9	24	10	34
Cincinnati, Lawrenceburg & Aurora Electric Street Railroad Co.	12										
Evansville Railways Co.	10						1	1	13	1	14
Evansville & Southern Indiana Traction Co.	7		2	61			1		13	61	74
Evansville Suburban & Newburgh Railway Co. (Also 3 steam locomotives)			1				5	5	11	5	16
Fort Wayne & Northern Indiana Traction Co. (Prior to February 25, 1911, known as Fort Wayne & Wabash Valley Traction Co.)		12		75	1				6	87	93
Fort Wayne & Springfield Railway Co.	17	5	7	17			5	22	29	44	73
Gary & Interurban Railway Co.	3		1	1					4	1	5
Indianapolis & Cincinnati Traction Co.	16						1		17	15	32
Indianapolis & Cincinnati Traction Co.	19	1	4	3			1	11	24	24	48
Indianapolis, Columbus & Southern Traction Co.	18				2	1	4	11	24	12	36
Indianapolis, Crawfordsville & Western Traction Co.	8						2		10	2	12
Indianapolis & Louisville Traction Co.	8		2					3	10	3	13
Indianapolis, New Castle & Toledo Electric Ry. Co.	6		2				1	6	9	7	16
Indiana Union Traction Co.	138	90	14	10			11	87	163	187	350
Kokomo, Marion & Western Traction Co.	4	2	1	1			3		8	3	11
Lebanon-Thorntown Traction Co.	2								2		2
Louisville & Northern Railway & Lighting Co.	11			11			1		13	18	31
Louisville & Southern Indiana Traction Co.	44	7	1				5		50	57	97
Marion, Bluffton & Eastern Traction Co.	7		1				1	2	9	3	12

ELECTRIC ROADS—TABLE No. 10—Continued.

OPERATING ROADS.	PASSENGER CARS.		FREIGHT CARS.		MAIL, BAGGAGE AND EXPRESS CARS.		ALL OTHER CARS.		Total Cars Electrically Equipped.	Total Cars Not Electrically Equipped.	Total All Cars.
	Electrically Equipped.	Not Electrically Equipped.	Electrically Equipped.	Not Electrically Equipped.	Electrically Equipped.	Not Electrically Equipped.	Electrically Equipped.	Not Electrically Equipped.			
Muncie & Portland Traction Co	5	6	2	98	28	35	27	5	7	5	12
Ohio Electric Railway Co	265							55	320	114	434
Southern Michigan Railway Co	12		3				2	11	17	11	28
Terre Haute, Indianapolis & Eastern Traction Co	188	22	16	6			17	38	221	66	287
Toledo & Chicago Interurban Railway Co	7	1	2	3			1		10	4	14
Winona Interurban Railway Co	15	6		6	3		2	21	20	33	53
Total	868	176	67	216	34	36	99	325	1,066	755	1,821

ELECTRIC ROADS—TABLE No. 11.

OPERATING ROADS.	GENERAL ADMINISTRATION.		MAINTENANCE.		TRANSPORTATION.		Total Number Employees.	Aggregate Salaries and Wages Paid.
	General Officers.	General Officer's Clerks.	Superintendents.	Other Employees.	Superintendents.	Other Employees.		
Angola Railway & Power Co.	1	1	1	5	8	\$4,763 13
Bluffton, Geneva & Celina Traction Co.	2	3	1	9	24	6,060 00
Chicago, Lake Shore & South Bend Railroad Co.	10	10	2	176	4	92	294	163,658 02
Chicago-New York Electric Air Line Railroad Co.	3	2	21	27	8,352 25
Chicago, South Bend & Northern Indiana Railway Co.	3	27	4	154	5	272	465	264,244 32
Cincinnati, Lawrenceburg & Aurora Electric Street Railroad Co.	3	4	20	2	30	64
Evansville Railways Co.	1	8	5	51	1	74	136	89,357 59
Evansville & Southern Indiana Traction Co.	4	15	1	61	2	201	284	128,273 39
Evansville Suburban & Newburgh Railway Co.	2	1	1	26	1	37	68	35,562 08
Ft. Wayne & Northern Indiana Traction Co. (Prior to February 25, 1911, known as Ft. Wayne & Springfield Railway Co.)	8	36	4	435	4	384	871	568,383 03
Ft. Wayne & Wabash Valley Traction Co.	5	3	15	1	6	30
Gary & Interurban Railway Co.	5	5	1	16	1	50	78	42,600 00
Indianapolis & Cincinnati Traction Co.	4	10	2	99	2	70	187	123,841 50
Indianapolis, Columbus & Southern Traction Co.	7	6	2	85	2	125	227	116,800 00
Indianapolis, Crawfordsville & Western Traction Co. (Not reported)
Indianapolis, Louisville Traction Co.	3	3	25	1	39	69	42,971 27
Indianapolis, New Castle & Toledo Electric Railway Co.	3	3	1	35	35	81	50,000 00
Indiana Union Traction Co.	17	45	10	638	6	578	1,204	759,327 84
Kokomo, Marion & Western Traction Co.	4	1	2	27	2	79	120	72,000 00
Lebanon-Thomstown Traction Co.	1	1	1	4	7	4,714 94
Louisville & Northern Railway & Lighting Co.	3	5	1	10	1	30	50	42,807 77
Louisville & Southern Indiana Traction Co.	3	3	1	50	1	100	160	83,632 46
Marion, Bluffton & Eastern Traction Co.	2	4	1	15	22	44	28,091 00
Muncie & Portland Traction Co.	2	15	27	46	29,200 00
Ohio Electric Railway Co.	23	116	121	896	15	1,092	2,263	1,367,349 09
Southern Michigan Railway Co.	2
Terre Haute, Indianapolis & Eastern Traction Co.	7	37	5	730	10	32	46	45,285 69
Toledo & Chicago Interurban Railway Co.	4	5	1	46	7	557	1,343	680,774 06
Winona Interurban Railway Co.	5	4	1	56	1	70	127	65,028 44
Total	137	364	169	3,707	63	4,092	8,520	4,910,447 94

ELECTRIC ROADS—TABLE No. 12.

TAXES.

OPERATING ROADS.	LINE OWNED IN INDIANA.		LINE LEASED AND OPERATED IN INDIANA.	
	Assessed Valuation.	Amount of Taxes Paid.	Assessed Valuation.	Amount of Taxes Paid.
Angola Railway & Power Co.		\$521 62		
Bluffton, Geneva & Celina Traction Co., New Line ¹		21,838 48		
Chicago, Lake Shore & South Bend Railway Co.	\$649,660 00	2,371 02		
Chicago-New York Electric Air Line Railroad Co.	191,280 00	38,143 86		
Chicago, South Bend & Northern Indiana Railway Co.	1,701,848 00	1,578 56		
Cincinnati, Lawrenceburg & Aurora Electric Street Railroad Co.		73 71		86,741 13
Evansville Railways Co.	2,690 00	12,660 75	\$307,420 00	
Evansville & Southern Indiana Traction Co.,	562,365 00	5,180 79		
Evansville Suburban & Northard Railway Co.	220,605 00			
Ft. Wayne & Northern Indiana Traction Co., (Prior to February 25, 1911, known as	2,019,750 00	47,328 64		
Ft. Wayne & Valash Valley Traction Co.	79,231 00	1,465 84		
Ft. Wayne & Springfield Railway Co.	44 80			
Gary & Interurban Railway Co.	856,647 00			
Indianapolis & Cincinnati Traction Co.		16,682 48		
Indianapolis & Cincinnati Traction Co.		11,328 27		
Indianapolis, Columbus & Southern Traction Co.		5,578 48		
Indianapolis, Crawfordsville & Western Traction Co.		5,991 46		
Indianapolis & Longville Traction Co.	187,447 00	3,049 28		
Indianapolis, New Castle & Toledo Electric Railway Co.	152,923 00	89,132 63		
Indiana Union Traction Co.	3,724,507 00	8,686 49		
Kokomo, Marion & Western Traction Co.	222,415 00	595 46		
Lafayette-Theriotown Traction Co.	176,205 00	3,093 98		
Louisville & Northern Railway & Lighting Co.	182,530 00	4,828 79	122,725 00	3,786 89
Louisville & Southern Indiana Traction Co.		3,972 60		
Marion, Bluffton & Eastern Traction Co.		5,757 35		
Muncie & Portland Traction Co.	227,190 00		191,313 00	2,936 40
Ohio Electric Railway Co.				
Southern Michigan Railway Co.	39,360 00	495 94		
Terre Haute, Indianapolis & Eastern Traction Co.	1,404,164 00	27,889 64	2,193,942 00	56,375 44
Toledo & Chicago Interurban Railway Co.		5,496 12		
Winona Interurban Railway Co.	427,547 00	9,045 92	38,570 00	820 68
Total	\$13,028,414 80	\$332,988 15	\$2,853,970 00	\$70,660 54

¹ Included in "owned" column.

EXPRESS COMPANIES—TABLE No. 1.

ORGANIZATION AND MILES OPERATED.

NAME OF COMPANY.	Date of Last Meeting of Stock or Shareholders for Election of Directors.	Total Number of Stockholders or Shareholders.	MILEAGE.								
			Steam Roads.	Electric Lines.	Steamboat Lines.	Stage Lines.	Miscellaneous Lines.	Total.	Outside Operations.		
									Ocean-going Mileage.	In Foreign Countries.	
Adams Express Company	July 1, 1854	2,956	32,784.94	314.58	3,438.00	23.00			36,560.52	12,662.00	430.00
American Express Co.	May 2, 1910	3,900	54,339.32	590.70	1,912.25	23.50		12.38	56,877.95	68,284.00	6,022.00
Pacific Express Company	June 5, 1911	12	15,938.11	539.21	503.34				16,980.65		
Southern Express Company	Nov. 17, 1910	36	31,654.60	80.00	846.00				32,580.60	2,170.00	
United States Express Company	Mar. 9, 1909	1,600	28,836.99	3,444.59	466.70				32,748.28	3,390.00	
Wells-Fargo & Company	Oct. 13, 1910	1,993	45,446.75	1,909.08	1,078.86	639.87			58,471.56	9,397.00	
Total		10,497	209,000.71	6,878.16	8,245.15	686.87		12.38	234,219.56	95,903.00	6,452.00

EXPRESS COMPANIES—TABLE No. 2.

CAPITAL STOCK.

NAME OF COMPANY.	Number of Shares Author- ized.	Par Value of Each Share.	Total Par Value Authorized.	Total Par Value Outstanding.	TOTAL PAR VALUE HELD BY RESPONDENT.		Total Par Value Not Held by Respondent.	DIVIDEND DECLARED.	
					In Treasury.	In Sinking Fund.		Rate.	Amount.
Adams Express Company.....	120,000	No par value	*120,000	*120,000	*19,160	*100,840	\$12.00 per Share	\$1,211,280
American Express Company.....	180,000	\$100	\$18,000,000	\$18,000,000	\$340,000	\$17,660,000	12 ^c / _c	2,119,200
Pacific Express Company.....	60,000	100	6,000,000	6,000,000	6,000,000	+14 ¹ / ₂ ^c / _c	870,000
Southern Express Company.....	60,000	No par value	*60,000	*30,000	*50,000	\$116.00 per Share	5,800,000
United States Express Company.....	100,000	100	10,000,000	10,000,000	10,000,000	6 ^c / _c	600,000
Wells-Fargo & Company.....	240,000	100	24,000,000	23,967,400	32,600	23,967,400	10 ^c / _c	2,396,740
Total.....	760,000	\$58,180,000	\$58,137,400	\$391,760	\$57,778,240	\$12,997,220

*Shares. † Partly from accumulated surplus.

PRESS COMPANIES—TABLE No. 3.

FUNDED DEBT.

NAME OF COMPANY.	Total Par Value Outstanding.	TOTAL PAR VALUE HELD BY RESPONDENT.		Total Par Value Not Held by Respondent.	INTEREST.	
		In Treasury.	Deposited with Trust Companies.		Amount Accrued.	Amount Paid.
Adams Express Company.....	\$36,000,000 00	\$288,100 00	\$15,257,900 00	\$20,454,000 00	\$820,239 45	\$820,932 77
American Express Company.....						
Pacific Express Company. (No funded debt)						
Southern Express Company. (No funded debt)						
United States Express Company. (No funded debt)						
Wells-Fargo & Company. (No funded debt)						
Total.....	\$36,000,000 00	\$288,100 00	\$15,257,900 00	\$20,454,000 00	\$820,239 45	\$820,932 77

EXPRESS COMPANIES—TABLE No. 4.

CASH ASSETS AND LIABILITIES.

NAME OF COMPANY.	Total Cash and Current Assets Available for Payment of Current Liabilities.	Balance Current Liabilities.	Total Liabilities Accrued to and Including June 30 1911.	Balance Cash Assets.	Materials and Supplies on Hand.
Adams Express Company	\$4,713,608 43	\$2,152,695 67	\$6,866,364 10		\$928 10
American Express Company	17,562,527 24	541,391 46	18,103,918 70		165,255 07
Pacific Express Company	1,075,310 38		530,759 66	\$544,550 72	18,854 90
Southern Express Company	4,015,567 64		2,096,130 98	1,919,436 66	21,217 06
United States Express Company	2,623,692 56	184,577 52	2,808,270 08		63,233 13
Wells-Fargo & Company	4,973,159 17	184,727 62	5,157,886 79		78,184 78
Total	\$34,963,925 42	\$3,063,392 27	\$35,563,330 31	\$2,463,987 38	\$347,673 04

EXPRESS COMPANIES—TABLE No. 4—Continued.

CASH ASSETS AND LIABILITIES.

NAME OF COMPANY.	STOCKS OWNED.				FUNDED DEBT OWNED.			
	Par Value of Stock Owned, Not Pledged, or Held in Sinking or Other Fund.	Rate of Dividends.	Amount of Dividends.	Valuation.	Par Value of Funded Debt Owned, Not Pledged or Held in Sinking or Other Fund.	Rate of Interest.	Amount of Interest.	Valuation.
Adams Express Company.....	*\$16,381,775 00	\$1,630,661 00	\$23,693,538 03	\$34,346,521 91	\$847,877 62	\$33,382,961 66
American Express Company.....	14,471,550 00	1,167,038 61	20,970,076 21	5,068,345 00	201,999 93	4,762,622 16
Pacific Express Company.....	1,673 35	112,555 37	1,673 35
Southern Express Company.....	241,800 00	467,716 00	543,795 26	337,000 00	463,089 49	316,565 56
United States Express Company.....	406,800 00	20,368 75	387,001 75	4,210,500 00	187,524 07	4,545,076 47
Wells-Fargo & Company.....	2,995,455 00	166,107 50	10,237,000 00	301,224 07
Total.....	\$34,407,380 00	\$3,051,891 86	\$45,594,211 25	\$54,201,040 26	\$1,614,280 55	\$43,008,899 20

* Also 19,160 shares, no par value.

† Interest on bonds sold during year included.

‡ Includes interest and dividends on securities sold during year.

EXPRESS COMPANIES—TABLE No. 5.
COST OF REAL PROPERTY AND EQUIPMENT.

NAME OF COMPANY.	EXPENDITURES DURING THE YEAR.					Total Cost to June 30, 1910.	Total Cost to June 30, 1911.
	Real Estate, Buildings and Fixtures Used in Operation.	Equipment, Cars, Horses, Vehicles, Other Equipment.	Not Included in Operating Expenses.				
			Charged to Income Account as Additions and Betterments.	Charged to Special Fund.	Charged to Capital.		
Adams Express Company.....	*\$31,503 95	\$138,281 87			\$106,777 92	\$6,461,407 70	\$6,568,185 62
American Express Company.....	181,664 72	217,211 81			398,876 53	9,940,977 38	10,339,853 91
Pacific Express Company.....	*3,000 00	*10,189 91			13,189 91	650,477 99	637,288 08
Southern Express Company.....	192,835 84	9,317 09		\$9,317 09	132,835 84	375,954 33	568,790 17
United States Express Company.....	*30,159 49	202,131 80			171,972 31	2,774,695 48	2,946,667 79
Wells-Fargo & Company.....	901,810 35	*21,160 30			880,650 00	4,251,939 16	5,132,589 16
Total.....	\$1,340,974 35	\$598,292 78		\$9,317 09	\$1,764,302 51	\$24,455,452 04	\$26,193,374 73

* Credited.

EXPRESS COMPANIES—TABLE No. 6.

INCOME ACCOUNT.

NAME OF COMPANY.	Gross Receipts from Operation.	Express Privileges.	Operating Revenue.	Operating Expenses.	Net Operating Revenue.	Net Revenue from Outside Operations.	Net Deficit from Outside Operations.	Total Net Revenue.	Taxes Accrued.	Operating Income.
Adams Express Company.....	332,855,185 24	\$17,083,831 62	\$15,771,353 62	\$14,271,041 55	\$1,500,312 07	\$14,283 70	\$1,486,028 37	\$245,479 68	\$1,240,548 69
American Express Company.....	41,683,196 15	19,372,526 37	22,310,669 78	18,996,797 86	3,313,871 92	3,313,871 92	353,357 60	2,960,514 32
Pacific Express Company.....	5,824,978 32	2,765,023 46	3,059,954 86	2,401,605 64	658,349 22	658,349 22	70,270 12	588,079 10
Southern Express Company.....	14,932,793 90	7,233,558 64	7,689,235 35	5,820,838 64	1,878,396 71	1,875,225 81	143,560 51	1,731,665 35
United States Express Company.....	20,364,074 34	9,717,522 89	10,646,551 45	10,142,497 57	504,053 88	3,170 85	504,053 88	123,399 61	380,654 25
Wells-Fargo & Company.....	25,167,427 71	11,796,021 01	13,371,406 78	10,905,791 68	2,375,615 10	\$27,065 21	2,402,680 31	248,909 54	2,153,770 81
Total	\$140,827,655 83	\$67,968,483 96	\$72,859,171 84	\$62,628,572 94	\$10,230,598 96	\$27,065 21	\$17,454 53	\$10,240,209 51	\$1,184,977 01	\$9,055,232 52

EXPRESS COMPANIES—TABLE No. 6—Continued.

INCOME ACCOUNT.

NAME OF COMPANY.	Other Income.	Gross Corporate Income.	Deductions from Gross Corporate Income.	Net Corporate Income.	Disposition of Net Corporate Income Dividends and Other Appropriations.	Balance for Year Carried Forward to Credit of Profit and Loss.	PROFIT AND LOSS.			
							Balance Credit, June 30, 1910.	Balance Debit, June 30, 1910.	Balance Credit, June 30, 1911.	Balance Debit, June 30, 1911.
Adams Express Company	\$2,596,900 47	\$3,837,449 16	\$1,011,960 00	\$2,825,489 16	\$1,211,280 00	\$1,614,209 16	\$24,175,087 05		\$25,941,419 15	
American Express Company	1,505,561 64	4,466,075 96	50,067 83	4,416,008 13	2,119,200 00	2,296,808 13	18,389,149 24		20,758,071 87	
Pacific Express Company	32,934 78	621,013 88		621,013 88	270,000 00	351,013 88	1,478,120 17		1,217,201 86	
Southern Express Company	211,591 35	1,943,256 70	31,669 01	1,911,587 69	599,317 09	1,402,270 60	8,336,215 95		3,814,673 15	
United States Express Company	394,352 62	775,006 87	24,185 48	750,821 39	600,000 00	150,821 39	1,486,674 83		1,585,196 54	
Wells-Fargo & Company	1,349,293 00	3,503,063 81	13,171 31	3,489,892 50	2,396,740 00	1,093,152 50	3,657,054 77		4,673,790 94	
Total	\$6,090,633 86	\$15,145,866 38	\$1,131,053 63	\$14,094,892 75	\$7,106,537 09	\$6,908,275 66	\$57,522,302 01		\$57,990,335 17	

EXPRESS COMPANIES—TABLE No. 7.

VALUE OF EQUIPMENT.

NAME OF COMPANY.	Total Value of Equipment June 30, 1910.	Total Value of Equipment June 30, 1911.
Adams Express Company	\$2,351,808 65	\$2,432,982 50
American Express Company	2,492,406 18	2,709,617 99
Pacific Express Company	327,877 10
Southern Express Company	512,194 91	521,512 00
United States Express Company	1,238,717 55	1,440,849 35
Wells-Fargo & Company	2,309,566 27	2,288,405 92
Total	\$9,232,577 66	\$9,393,367 76

EXPRESS COMPANIES—TABLE No. 8.

STATISTICS OF FINANCIAL PAPER ISSUED.

NAME OF COMPANY.	Number of Money Orders Sold.	Number of Travelers' Checks Sold.	Number of C. O. D. Checks Sold.	Number of Letters of Credit Issued.	Number of Other Forms of Remit- tances Issued.	Total Number.	Amount.	Number of Express Offices June 30, 1911.	Number of Offices at Which Money Orders Were Sold June 30 1911.
Adams Express Company	969,181	1,118,662	872,637	969	804,828	1,841,818	\$20,129,416 82	5,895	4,273
American Express Company	4,752,197	1,584,183	1,584,183	969	804,828	8,350,839	306,383,339 13	7,386	7,054
Pacific Express Company	500,143	329,652	329,652	969	804,828	8,350,839	6,980,713 91	1,955	1,916
Southern Express Company	1,808,355	606,803	606,803	25	35,841	2,415,158	17,879,069 47	3,973	3,458
United States Express Company	1,532,478	59,046	848,549	25	35,841	2,476,907	27,870,861 47	4,734	4,657
Wells-Fargo & Company	1,960,731	125,758	1,103,402	994	502,553	3,692,444	39,537,737 72	5,156	4,306
Total	11,522,985	1,303,466	5,345,226	994	1,433,222	19,606,961	\$418,790,138 52	29,099	25,664

EXPRESS COMPANIES—TABLE No. 9.

TAXES.

NAME OF COMPANY.	AD VALOREM TAX.		SPECIFIC TAX.		On Property Owned, Not Used in Operation, and Miscellaneous.	Internal Revenue, U. S. Government.	Total.	Total for Indiana.
	On the Value of Real and Personal Property.	On the Value of Stock or Bonds or on Valuation Based on Earnings, Dividends or Other Results of Operation.	On Gross or Net Earnings, Revenue or Dividends.	On Traffic, or Some Physical Quality of Property Operated, or on Privileges.				
Adams Express Company.....	\$101,112 55	\$178,339 06	\$61,155 68	\$51,817 10	\$617 76	\$31,394 35	\$245,479 68	\$1,527 04
American Express Company.....	119,806 13	14,475 73	1,150 00	19,017 87		34,426 78	353,357 60	14,158 94
Pacific Express Company.....	10,813 22	58,395 63	35,709 52	1,785 21		7,486 44	70,270 12	731 01
Southern Express Company.....	24,640 85	3,038 31	35,212 45	41,214 38		19,309 65	143,560 51	415 06
United States Express Company.....	71,561 03	7,020 48	145,206 74	5,233 45		8,354 45	123,399 63	3,466 50
Wells-Fargo & Company.....	60,359 05			11,866 84		23,620 70	248,909 50	678 54
Total.....	\$388,292 83	\$261,269 21	\$278,434 39	\$130,934 85	\$1,470 86	\$124,592 37	\$1,184,977 04	\$20,977 09

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ANNUAL REPORT

OF THE

SOUTHEASTERN HOSPITAL FOR THE INSANE

Cragmont, near Madison, Indiana.

FOR THE

Year Ending September 30, 1911

TO THE GOVERNOR

INDIANAPOLIS:

WM B BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING

1912

THE STATE OF INDIANA,

EXECUTIVE DEPARTMENT,

March 2, 1912.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,

INDIANAPOLIS, March 4, 1912.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. O'BRIEN,

Auditor of State.

MARCH 30, 1912.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

MARK THISTLETHWAITE,

Secretary to the Governor.

Filed in the office of the Secretary of State of the State of Indiana, February 30, 1912.

L. F. ELLINGHAM,

Secretary of State.

Received the within report and delivered to the printer. March 30, 1912.

ED D. DONNELL,

Clerk Printing Board.

Southeastern Hospital for the Insane

1911

BOARD OF TRUSTEES.

EPHRAIM INMAN, President, Indianapolis, Ind.
JAMES W. LILLY, Vice-President, Indianapolis, Ind.
CHARLES CRAVENS, Treasurer, Madison, Ind.
FRANCIS M. GRIFFITH, Secretary, Vevay, Ind.

MEDICAL SUPERINTENDENT.

EDWARD P. BUSSE, M.D.

ASSISTANT PHYSICIANS.

JAMES K. POLLOCK, M.D.
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INTERN.

THYRA JOSSELYN, M.D.

CHIEF CLERK.

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STOREKEEPER.

PATRICK J. MCINNERNEY.

SECRETARY.

ELIZABETH LESH.

CHAPLAIN.

JOSEPH H. BARNARD.

IN MEMORIAM

Mr. Samuel B. Sweet,

Trustee, August 1, 1910, to October 10, 1910.

(From Minutes of Board of Trustees, October 20, 1910.)

"October 10th came to us freighted with the knowledge that our circle, so lately welded together, had been rudely broken by the rough hand of Death. Yesterday Colonel Sweet was with us in our deliberations, rounding up the year's work with his indomitable energy. Today he is numbered among the dead.

"His life has been forceful, his character one of unusual strength, and this body will long mourn and miss his wise counsels.

"We, as a body, will suffer much from his loss, wholly unexpected. It comes at a time when we can ill afford his absence from our deliberations; full of business, his personality permeates to an unusual degree all his surroundings.

"As a member of our board he will long be missed, and not less faithful was his life as a citizen and a soldier, being a prominent member of the Grand Army of the Republic.

"His life went out as the snuff of a candle, now full of vigor and strength and now sleeping the sleep of death.

"*Resolved*, That we tender to the bereaved family of the deceased our heartfelt sympathy and condolence."

Mr. George S. Pleasants.

Trustee, August 1, 1910, to February 24, 1911.

(From Minutes of Board of Trustees, March 14, 1911.)

"Whereas, the all wise Providence has willed to remove from among the living our distinguished fellow citizen, the Honorable George S. Pleasants, suddenly and without warning.

"Now, therefore, be it resolved by the Board of Trustees of the Southeastern Hospital for the Insane, of which body the de-

ceased had been an honorable and efficient member since August 1, 1910:

“That in the death of Mr. Pleasants the Southeastern Hospital sustained the loss of a genuine official and supporter; the State of Indiana has been deprived of one of her best and most highly honorable citizens; the legal profession has lost one of its most skillful and profound lawyers; the Board of Trustees of the Southeastern Hospital is deprived of one of its most valuable, faithful and devoted members, and the grief stricken family are bereft of the noblest type of husband and father.

“It is the sense of this board, from intimate association with the deceased in his lifetime, that it would be difficult to find a more loyal and congenial friend, a more efficient and conscientious public official and a more lofty specimen of moral and magnanimous manhood than was represented in the person of our deceased brother. It must of necessity be the feeling of all with whom he came in contact, that the world was made better for his having lived in it and the example of his life, both public and private, will shine down the pathway of posterity for good.

“We tender to the widow and children of the deceased our sincerest sympathies in the distressing loss they have suffered in the death of this good man.”

Board of Trustees Report

HON. THOMAS R. MARSHALL, *Governor of Indiana*, Indianapolis, Ind.:

Sir—In accordance with the laws of the State of Indiana, the Board of Trustees of the Southeastern Hospital for the Insane, respectfully submits the following report for the fiscal year ending September 30, 1911.

The general maintenance fund of \$225 per capita proved sufficient to carry on all the necessary expenses of the institution. This included the building of walks to the unoccupied cottages, which would have to be opened on account of the increased number of patients, due to the addition of seven counties to the Southeastern district.

The addition of these seven counties to our district will test the capacity of the hospital and the two cottages needed to complete the plans, and asked for in our last report, will be needed to properly care for the patients belonging to this hospital.

The \$20,000 appropriated by the Legislature for driveways and walks will be made to go as far as possible, but it will not be sufficient to complete roads, walks and improvement on the grounds as planned.

Patients enrolled October 1, 1910.....	543
Admitted during the year	332
Died	68
Discharged	49
Enrolled September 30, 1911.....	875
Average number present.....	603.722
Average number enrolled.....	630.205

The \$2,000 special appropriation for clothing made by the last Legislature, was not used.

The fiscal tables in the appended report of the Medical Superintendent show in detail the receipts and disbursements, a summary of which follows.

APPROPRIATION.

Maintenance Fund—Regular—Act Approved March 9, 1909. Per Capita \$225.

Amount available for current year.....	\$135,826 195	
Expended during year.....	135,618 44	
Balances reverting to State treasury.....		\$207 755
Clothing fund (Act approved March 4, 1911)....	\$2,000 00	
Balance reverting to State treasury.....		\$2,000 00
Total		\$2,207 755

Summary of Expenditures from Maintenance Fund.

Subsistence	\$36,048 05
Salaries and wages.....	44,568 98
Wearing apparel	5,010 13
Office, domestic and outdoor expenses.....	47,058 64
Repairs and improvements.....	2,932 64
<hr/>	
Total	\$135,618 44

On October 10, 1910, occurred the death of Trustee Samuel B. Sweet, who was succeeded on the board by Mr. Fred H. Sims, who resigned and was succeeded by Mr. James W. Lilly.

On February 24, 1911, occurred the death of Trustee George S. Pleasants, who was succeeded by Mr. Francis M. Griffith.

The board suffered a great loss by the death of these two estimable gentlemen, as they had at all times displayed an active interest in the welfare of the institution.

June 13, 1911, a contract was entered into for the construction and completion of two brick stock barns, in accordance with plans and specifications prepared by Herbert Foltz, architect, with Pulse & Porter, contractors, at their bid of \$19,640.

Pulse & Porter were also given the contract for the construction of a piggery, as per plans made by the Medical Superintendent, Dr. E. P. Busse.

We have constructed a runway and iron coal bins in the boiler house for the convenience of unloading coal from the cars.

Owing to the fact that the hospital has only been open one year and two months, and all obstacles which usually arise at the beginning of an institution of this kind have been promptly met and disposed of, we are pleased to report that the best results have been obtained with the means at our disposal and that all departments of this hospital are in a satisfactory condition. The patients entrusted in our care have received the highest attention possible and the number that have recovered and improved is exceptionally gratifying.

These results are mainly due to the knowledge and untiring efforts of the Superintendent and his efficient corps of officers and employes with whom he has surrounded himself.

Respectfully submitted,

EPH. INMAN,
JAMES W. LILLY,
FRANCIS M. GRIFFITH,
CHARLES CRAVENS,

Trustees.

Medical Superintendent's Report

To the Board of Trustees:

Gentlemen—I beg leave to submit the following report of the Southeastern Hospital for the fiscal year ending September 30, 1911:

Movement of Patients.

	Men.	Women.	Total.
Enrolled September 30, 1910.....	245	298	543
Admitted during year.....	203	128	331
Discharged	29	20	49
Recovered	12	12	24
Improved	13	7	20
Unimproved	4	0	4
Idiotic	0	1	1
Died	42	25	67
Enrolled September 30, 1911.....	448	427	875
Average number present.....	281.742	321.980	603.722
Average number enrolled.....	297.685	332.520	630.205

MEDICAL HISTORY.

Since the opening of the hospital, August 1, 1910, 875 patients have been admitted, 448 men and 427 women. Of this number 24 were discharged recovered, 20 improved and 4 unimproved, 1 idiotic and 67 died while under treatment. During the year there were 332 admissions, 203 men and 129 women.

The counties first comprising this hospital district were Brown, Bartholomew, Clark, Decatur, Dearborn, Floyd, Jackson, Jennings, Jefferson, Lawrence, Monroe, Ohio, Ripley, Scott, Switzerland and Washington. On June 7, 1911, the Governor added the following counties to the district: Clay, Fayette, Harrison, Morgan, Owen, Rush and Vigo, making a total of twenty-three counties. Sixty-three patients have been transferred from the Eastern Hospital and there are still due about 250 from the Central Hospital and 40 from the Southern Hospital.

This additional number, with the natural increase from the county jails, infirmaries and new cases will tax the capacity of the hospital before the end of the coming fiscal year. The maximum capacity of the hospital at present is eleven hundred beds.

The appended medical tables set forth in detail the record of the movement of patients.

The following funds were available for the fiscal year ending September 30, 1911:

Maintenance at \$225 per capita.....	\$135,826 195
Special appropriation for clothing.....	2,000 00
Total fund available.....	\$137,826 195

The disbursements were as follows:

Subsistence	\$36,048 05
Administration	44,568 98
Sundries	47,058 64
Clothing	5,010 13
Ordinary repairs.....	2,932 64
Total	\$135,618 44
Unexpended balance.....	2,207 75

The receipts from sales for the year amounted to \$415.07, which sum was converted into the general fund of the State treasury, as required by law, and monthly reports of same submitted to the Auditor of State.

The allowance of \$225 per capita, through economic expenditure, proved adequate to meet all expenses for the year, such as maintenance, repairs, clothing for patients, and as a result it did not prove necessary to use any of the \$2,000 especially appropriated by the last Legislature for clothing. We were also enabled to purchase much needed furniture, musical instruments, farm implements, vehicles, horses, pigs and dairy cattle.

The installation of the dairy enables us to supply sufficient milk for all our need at the close of the year.

The products of the farm and garden amounted to \$7,270.60. Of this amount \$6,715.95 was consumed in the kitchen, and in outdoor departments \$524.65.

Among the products were roasting ears, string beans, tomatoes, potatoes, beets, radishes, turnips, sweet potatoes, squash, pumpkin, rhubarb, cabbage, water melons, cantaloupes, strawberries, hay, corn and oats. We also raised chickens and pigs to supply us with all of our pork and lard.

As no screens were furnished with the equipment, we found it necessary to purchase screens for the dining-rooms, kitchens, scul-

leries, coldstore, bakeshop, hospital and infirmary buildings. These were all equipped with rewirable metal frame screens, made with galvanized steel frame, black baked japan finish, with copper corners, bronze lifts, rivet construction, fitted with fourteen mesh, genuine bronze wire cloth, equipped with turned edge copper guide, at a cost of about \$2,000.

The smokestack has been equipped with suitable lightning rods at a cost of \$275. This was after the lightning had struck us in five different places, as follows: Smokestack, water tower, chimney on men's infirmary, chimney on rear center west and the administration house. Fortunately no great damage was done.

Notwithstanding the fact that we had no available fund, considerable work was done in the way of grading, laying of walks, building roads, clearing the hillside of underbrush, removing old buildings and filling in about the rear cottages on the east side. This work was done mainly by the aid of patients and by farm hands and teams during spare moments.

The laying out of the grounds and driveways is being done under the supervision of Geo. E. Kesler & Company, landscape architects. When this work is completed and the trees and flowers planted, Cragmont, with its hilly surroundings, and Madison and the placid Ohio River in the valley, will be one of the prettiest sites in the world.

Being a firm believer in physical exercise and amusement as one of the most important factors in the treatment of the class of patients entrusted to our care, light employment is given all those able to do same; daily walks are taken whenever the weather permits and indoor and outdoor amusements provided. Baseball games are played on the hospital diamond in the summer, in which patients participate or are onlookers, and in winter basket ball is an attraction in the assembly hall. Every Friday night a patients' dance is held and on alternating Tuesdays moving picture shows are given.

The success of the year's work was largely due to officers and employes of every rank and position, who have been faithful and efficient, and I gratefully acknowledge my appreciation of the assistance they rendered me. In the organization of the working forces no favoritism or prejudices controlled, my desire being to fill each position with honest and capable people, and, while this necessitated numerous changes, it is gratifying to report that many of those who were employed at the opening of the institution are

still with us and those taking the place of the others are proving themselves worthy of our confidence.

Congratulations are due you, members of the board, for the services you have rendered the State of Indiana as trustees of this new institution, and I express to you my gratitude for your continued confidence, assistance and courteous consideration manifested at every opportunity, which made simple the solution of the problems that confronted us, and thereby lightened those duties which otherwise would have been difficult and onerous.

During the year the messenger of Death made two untimely and unwelcome calls, taking to their reward Trustees Samuel B. Sweet and George S. Pleasants, in which not only we, but the State at large, suffered a great loss, as both at all times took an active interest in the welfare of the institution.

Respectfully submitted,

E. P. BUSSE,
Medical Superintendent.

Medical Tables with Medical Superintendent's Report

TABLE No. 1.

*Movement of Patients from October 1, 1910, to September 30, 1911,
Inclusive.*

	Men.	Women.	Total.
Whole number received	203	128	331
Transferred from Eastern Hospital.....	39	24	63
Transferred from Eastern Hospital on fur- lough	1	0	1
Discharged	29	20	49
Died	42	25	67
Temporarily absent.....	27	19	46
Remaining September 30, 1911.....	349	362	711
Present at beginning of period.....	240	296	536

TABLE No. 2.

Deaths, Psychoses and Complications.

Cause of Death.	Psychoses.	Male.	Fe- male.	Total.
Tuberculosis	Organic dementia.....	2	1	3
Senile exhaustion.....	Epileptic dementia.....	1	..	1
Cerebral hemorrhage	Senile dementia.....	1	..	1
Mitral insufficiency	Dementia precox.....	2	..	2
Acute dilatation of heart.....	Senile dementia.....	2	2	4
Apoplexy	Organic dementia.....	..	1	1
Uremia	Paresis	1	..	1
Exhaustion of arterio sclerosis.	Senile dementia	2	2	4
Pneumonia	Manic depression, manic.	..	1	1
Apoplexy	Manic depression, manic.	1	..	1
Exhaustion of chronic enteritis..	Organic dementia	1	1
Myocarditis	Paresis	1	1
Exhaustion following fracture of femur	Senile dementia	1	1
Tuberculosis	Dementia precox.....	1	4	5
Fracture of skull.....	Senile dementia	1	..	1
Nephritis	Manic depression, de- pressed	1	..	1

TABLE No. 2—Continued.

Cause of Death.	Psychoses.	Fe-		Total.
		Male.	male.	
Eraphysema	Senile dementia	1	..	1
Cystitis	Paresis	1	..	1
Pneumonia	Senile dementia	1	1
Dilatation of heart.....	Alcoholic dementia	1	..	1
Apoplexy	Senile dementia	1	1
Miliary tuberculosis.....	Epileptic insanity	1	..	1
Tubercular peritonitis.....	Manic depression	1	..	1
Exhaustion from dislocated hip....	Involutional	1	1
Intestinal obstruction.....	Dementia precox	1	1
Acute enteritis.....	Dementia precox	1	1
Dilatation of heart.....	Epileptic insanity	3	..	3
Pneumonia	Dementia precox	1	1	2
Nephritis	Involutional psychosis....	1	..	1
Septicæmia	Paranoia	1	..	1
Hemorrhage of spleen.....	Involutional psychosis....	..	1	1
Septicæmia.....	Involutional psychosis....	1	1	2
Mitral insufficiency.....	Senile dementia	1	..	1
Apoplexy	Paresis	5	..	5
Mitral and aortic regurgitation....	Paresis	2	..	2
Status epilepticus.....	Epileptic dementia	1	..	1
Syphilis	Organic dementia	1	..	1
Cancer of face.....	Organic dementia	1	..	1
Diabetes mellitus.....	Senile dementia	1	..	1
Aortic insufficiency.....	Senile dementia	1	..	1
Edema of lungs.....	Senile dementia	1	1
Acute dilatation of heart.....	Manic depression, manic.	1	1
Pulmonary tuberculosis.....	Manic depression, de- pressed	1	..	1
Autointoxication	Paresis	1	..	1
Exhaustion of manic state.....	Manic depression	1	1

TABLE No. 3.

Duration of Psychoses of Admitted, Fiscal Year 1911.

	Men.	Women.	Total.
Two months or less.....	23	16	39
Three months or less.....	8	10	18
Six months or less.....	36	11	47
One year.....	24	11	35
Two years.....	17	13	30
Three years.....	26	12	38
Four years.....	8	5	13
Five years.....	10	7	17
Six years.....	9	2	11
Seven years.....	2	2	4
Eight years.....	4	0	4
Nine years.....	4	1	5
Ten years.....	10	2	12
Ten to fifteen years.....	7	8	15
Fifteen to twenty years.....	7	8	15
Twenty to thirty years.....	11	16	27
Thirty to forty years.....	5	2	7
Over forty years.....	..	2	2
Total.....	203	128	331

TABLE No. 4.

Civil Condition of Admitted, Fiscal Year 1911.

	Men.	Women.	Total.
Single.....	104	50	154
Married.....	74	50	124
Divorced.....	5	5	10
Widowed.....	20	23	43
Total.....	203	128	331

TABLE No. 5.

Approximate Ages of Admitted, Fiscal Year 1911.

	Men.	Women.	Total.
Between ten and twenty years.....	8	4	12
Between twenty and thirty years.....	32	19	51
Between thirty and forty years.....	39	23	62
Between forty and fifty years.....	38	23	61
Between fifty and sixty years.....	32	29	61
Between sixty and seventy years.....	27	12	39
Between seventy and eighty years.....	24	12	36
Between eighty and ninety years.....	3	5	8
Total	203	128	331

TABLE No. 6.

Clothing Supply of Admitted, Fiscal Year 1911.

Source of Supply—	Men.	Women.	Total.
County	143	69	212
Friends	60	59	119
Total	203	128	331

TABLE No. 7.

Hours Employed in Ward, Fiscal Year 1911.

Months—	Men.	Women.	Total.
October, 1910.....	4,146	3,704	7,850
November, 1910.....	5,253	3,370	8,623
December, 1910.....	6,287	4,785	11,072
January, 1911.....	6,632	5,233	11,865
February, 1911.....	5,630	4,871	10,501
March, 1911.....	6,626	5,380	12,006
April, 1911.....	6,009	5,272	11,381
May, 1911.....	6,547	5,468	12,015
June, 1911.....	6,653	5,435	12,088
July, 1911.....	6,836	6,337	13,173
August, 1911.....	7,871	6,547	14,413
September, 1911.....	8,060	6,298	14,358
Total	76,550	62,700	139,250

Hours Employed Out of Ward.

Months—	Men.	Women.	Total.
October, 1910.....	15,694	4,401	20,095
November, 1910.....	18,007	5,943	23,950
December, 1910.....	15,982	7,019	23,001
January, 1911.....	16,983	7,781	24,764
February, 1911.....	15,004	6,722	23,766
March, 1911.....	18,978	7,318	26,296
April, 1911.....	17,347	7,646	24,987
May, 1911.....	19,019	12,274	31,293
June, 1911.....	17,925	11,799	29,724
July, 1911.....	21,110	12,679	33,789
August, 1911.....	21,352	13,240	34,592
September, 1911.....	21,092	14,242	35,334
Total	218,533	111,058	329,591

TABLE No. 8.

Nativity of Inmates.

State or Country—	Men.	Women.	Total.
California	1	0	1
Delaware	2	0	1
Illinois	4	1	5
Indiana	145	95	240
Iowa	0	1	1
Kentucky	15	9	24
Maryland	2	1	3
New York.....	1	0	1
North Carolina.....	0	1	1
Ohio	12	6	18
Pennsylvania	3	0	3
Scotland	0	1	1
South Carolina.....	0	1	1
Unknown	5	2	7
Virginia	0	3	3
W. Virginia.....	1	1	2
England	1	1	2
Germany	10	3	13
Hungary	1	0	1
Ireland	0	2	2
Total	203	128	331

TABLE No. 9.

Daily Average of Attendance.

Month—	Men.	Women.	Total.
October, 1910.....	245.709	300.064	545.773
November, 1910.....	252.033	306.600	558.633
December, 1910.....	252.870	310.322	563.192
January, 1911.....	256.451	316.290	572.741
February, 1911.....	260.392	313.890	574.282
March, 1911.....	268.322	318.258	586.580
April, 1911.....	277.30	321.612	598.912
May, 1911.....	286.645	325.967	612.612
June, 1911.....	293.733	325.266	618.999
July, 1911.....	299.580	322.096	621.676
August, 1911.....	341.580	346.322	687.902
September, 1911.....	346.90	357.033	703.933
Average	281.742	321.980	603.722

TABLE No. 10.

Movement of Population from October 1, 1910 to September 30, 1911.

Fiscal Year 1911—	Men.	Women.	Total.
Enrolled October 1, 1910.....	240	298	538
Temporarily absent October 1, 1910.....	5	2	7
Received	203	128	331
Died	42	25	67
Temporarily absent.....	27	19	46

Financial Tables with Medical Superintendent's Report

EXHIBIT No. 1.

Summary of Receipts and Expenditures for Fiscal Year Ending September 30, 1911.

Maintenance	\$135,826 195	
(Appropriation \$225 per capita.)		
Disbursements	135,618 44	
Converted into general fund.....		\$207 755
Repairs appropriated	None	
Repairs expended	None	
Clothing appropriated	\$2,000 00	
Expended	None	
Converted into general fund.....		2,000 00
Earnings		415 07
Total		\$2,622 825

Appropriated Allowance Based on Average Actually Present Each Month, at \$225 Per Capita.

Month.	Average.	Per. Cap.	Per Month.	Amount.
1910.				
October	546.548	\$18.75		\$10,247.775
November	558.633	18.75		10,474.368
December	563.193	18.75		10,559.868
1911.				
January	572.741	18.75		10,738.893
February	574.071	18.75		10,763.831
March	586.580	18.75		10,998.375
April	598.766	18.75		11,226.862
May	612.612	18.75		11,486.475
June	618.700	18.75		11,600.625
July	621.677	18.75		11,656.443
August	686.677	18.75		12,875.193
September	703.866	18.75		13,197.487
Total	7,244.064			\$135,826.195

EXHIBIT No. 2.

Showing Classified Expenditures on Account of Maintenance for the Fiscal Year Ending September 30, 1911.

Fresh meats	\$11,022 65
Cured meats	1,827 68
Butterine	2,429 17
Fresh fruits	200 09
Cereals	853 32
Sugar	1,768 96
Vegetables	4,278 00
Coffee	1,502 57
Tea	3,543 03
Lard	203 45
Eggs	639 92
Poultry	285 53
Dried fruits	1,087 29
Syrups and vinegar	1,080 77
Cheese	462 30
Canned goods	1,115 34
Fish and oysters	113 15
Milk	2,487 05
Breadstuffs	3,953 61
Groceries	346 17
Provender	959 99
Laundry supplies	1,541 23
Cold storage supplies	58 71
Drugs and surgical instruments	1,612 92
Oils and paints	592 86
Soaps and sal soda	1,510 68
Dry goods and notions	232 23
Coal	19,739 11
Livestock	5,049 06
Salaries and wages	44,568 98
Freight and express charges	265 49
Telegrams and telephones	182 36
Traveling expenses	658 08
Postage	259 83
Woodenware and crockery	53 25
Tobacco	422 70
Queensware	194 80
Hardware	163 82
Tinware	432 43
Engineer's supplies	1,602 75
Advertising	152 90
Printing and stationery	384 82
Salt	48 00
Books and papers	78 90
Blacksmithing	73 45

Music and amusements	\$2,079 81
Repairs for patients	63 00
Dental work	2 50
Miscellaneous expenses	6 00
Electrical supplies	681 37
Cutlery	9 95
Cooking utensils	103 43
Wire goods	75 80
Tools	47 14
Plumbing supplies	3 65
Furniture	1,553 50
Toweling	24 30
Brooms, mops and brushes	359 25
Seeds and roots	531 55
Harness and horse millinery	328 83
Vehicles	274 10
Farm implements and tools	851 54
Plowing and harvesting	25 75
Bedding	255 82
House furnishings	128 01
Wearing apparel	3,567 65
Sanitary supplies	2,142 11
Trees, shrubs and plants	107 30
Undertaking	78 00
Pipe and fittings	1,219 49
Carpets and curtains	70 88
Toilet paper	178 18
Lumber	609 49
Keys, rings and chains	3 00
Sewing room supplies	1,210 25
Boiler supplies	544 47
Napery	36 85
Building repairs	1,053 47
Fertilizers	418 50
Parkage	134 70
<hr/>	
Total	\$135,618 44

EXHIBIT No. 3.

The following is a complete list of vouchers approved by the Board of Trustees for the fiscal year ending September 30, 1911, the originals of which, properly signed and sealed, may be found at the office of the Auditor of State, duplicates thereof being on file in the office of the hospital:

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
1.	E. P. Busse, Med. Superintendent..	October payroll	\$3,170 07
2.	E. P. Busse.....	Incidental expenses	237 05
3.	Hope Publishing Co.....	Books and papers.....	4 50
4.	Armour & Company.....	Meats, butterine, lard.....	331 34
5.	Swift & Co.....	Cured meats	226 48
6.	The Pearl Packing House.....	Fresh and cured meats....	1,107 84
7.	The Sanborn Electric Co.....	Electrical supplies	3 00
8.	M. C. Hunt.....	Laundry supplies	262 10
9.	Fetta Water Softener Co.....	Engineer's supplies	19 00
10.	A. Kiefer Drug Co.....	Drugs and surgical inst'mts..	50 14
11.	W. H. Rogers.....	Drugs and surgical inst'mts..	61 69
12.	The Fleischmann Co.....	Breadstuffs	23 50
13.	Hargan & Co.....	Hardware, etc.	92 00
14.	Madison Machine Co.....	Engineer's supplies	26 81
15.	The Lodge Hardware Co.....	Hardware, etc.	2 09
16.	N. Horuff & Sons.....	Dry goods, toweling, etc....	99 73
17.	Chas. Kahn.....	Brooms, mops and brushes..	14 65
18.	Standard Oil Co.....	Oils	48 70
19.	The Madison Telephone Co.....	Telegrams and telephones...	13 15
20.	The Democrat Co.....	Books, papers, advertising...	5 00
21.	The Herald Co.....	Printing and advertising....	10 50
22.	The Madison Courier.....	Advertising	4 50
23.	C. A. Stanton's Sons.....	Engineer's supplies	19 26
24.	Cofield-Barber Grocery Co.....	Cereals, syrup, tobacco, gro..	163 08
25.	O. Oliver & Son.....	Vegetables	51 80
26.	G. W. Waters.....	Breadstuffs, coffee, tea, eggs..	594 63
27.	J. E., C. F. Harper & Co.....	Groceries	1 80
28.	Middleton & Wymond Co.....	Coal	1,737 85
29.	J. B. Andrew.....	Vegetables	545 08
30.	Geo. Schumann	Livestock	200 00
31.	Cal Francis	Blacksmithing	3 00
32.	Sulzer Bros.	Woodenware and crockery...	3 21
33.	C. H. Hunger.....	Provender	7 75
34.	Jesse Dunn	Freight and express charges..	5 00
35.	J. L. Kegley.....	Traveling expenses	12 75
36.	Chas. M. Short.....	Fish and oysters.....	75
37.	Patrick Wade	Provender, seeds and roots...	17 50
38.	C. H. Rousch	Printing and stationery....	95
39.	Chas. O'Day	Seeds and roots.....	2 00
40.	H. W. Rutherford.....	Blacksmithing	2 50
41.	John E. Mersdorff.....	Harness and horse millinery..	18 50
42.	Hoffman & Ritchie.....	Milk	186 25
43.	Chas. Fischer	Vehicles	48 10
44.	Peter Beerck	Harness and horse millinery..	36 15
45.	Alvin Young	Vegetables	48 65
46.	C. P. Richardson.....	Farm implements and tools..	20 00
47.	The Elmer E. Scott Co.....	Soaps, fruits, groceries, etc..	741 95
48.	E. P. Busse, Med. Superintendent..	November payroll	3,309 26
49.	E. P. Busse.....	Incidental expense	60 19

No.	Claimant.	On Account of.	Amount.
50.	Middleton & Wymond Co.....	Coal	\$2,646 46
51.	Pearl Packing House.....	Meats, eggs, poultry.....	839 99
52.	The Elmer Scott Co.....	Sugar, cereals, soaps, tobacco..	531 81
53.	Cofield-Barber Gro. Co.....	Syrup, vinegar, salt, vegtbls..	439 77
54.	W. H. Rogers.....	Drugs, surgical instruments..	128 26
55.	Hargan & Co.....	Hardware, cooking utensils..	81 43
56.	G. W. Waters.....	Tea, coffee	194 00
57.	Taylor-Hitz Co.....	Breadstuffs	291 30
58.	Drusilla Cravens	Vehicles and harness.....	125 00
59.	Hoffman & Ritchie.....	Milk	195 79
60.	J. A. Palmer.....	Livestock	237 50
61.	Dehlers Stores	Dry goods and notions.....	50
62.	F. W. Pfortner.....	Fresh and dried fruits.....	1 65
63.	J. E., C. F. Harper & Co.....	Seeds and roots	2 40
64.	Peter Beerck & Son.....	Harness and horse millinery..	2 05
65.	The Lodge Hdwe. Co.....	Plowing and harvesting.....	4 03
66.	J. F. Wells.....	Farm implements and tools..	51 00
67.	John E. Mersdorf	Harness and horse millinery..	11 45
68.	N. Horuff & Sons.....	Bedding, dry goods, etc.....	39 32
69.	Madison Machine Co.....	Engineers supplies	25 56
70.	The Courier Co.....	Advertising	4 50
71.	The Herald Co.....	Advertising and printing....	7 00
72.	The Democrat Co.....	Advertising	3 80
73.	C. H. Rousch & Co.....	Stationery and books.....	7 00
74.	The Madison Telephone Co.....	Telegrams and telephones....	8 00
75.	Swift & Co.....	Meats, vegetables, lard.....	351 20
76.	Crane Company	Engineer's supplies	177 47
77.	Max Woche & Son Co.....	Drugs, surgical instruments..	104 48
78.	Proctor & Gamble.....	Laundry supplies	101 75
79.	American Laundry Machy. Co....	Laundry supplies	86 45
80.	The Fleischmann Co.....	Breadstuffs	19 95
81.	Garlock Packing Co.....	Engineer's supplies	19 96
82.	Speed Printing and Pub. Co.....	Printing and stationery.....	6 50
83.	Woman's Medical College.....	Books, etc.	4 00
84.	Vonnegut Hdwe. Co.....	Hardware	2 33
85.	Standard Oil Co.....	Oils	1 63
86.	Armour & Co.....	Cured meats, butterine.....	271 11
87.	E. P. Busse, Med. Superintendent..	December pay roll.....	3,407 09
88.	E. P. Busse.....	Incidental expense	205 85
89.	W. K. Stewart Co.....	House furnishings	10 00
90.	Swift & Co.....	Cured meats, lard	100 39
91.	Standard Oil Co.....	Oils	58 97
92.	The American Laundry Machy. Co..	Laundry supplies	10 00
93.	Russell & Erwin Mfg. Co.....	House furnishings	1 01
94.	The Sanborn Electric Co.....	Electrical supplies	22 30
95.	Lilly & Stalnaker.....	Engineer's supplies	60 67
96.	Proctor & Gamble Dist. Co.....	Laundry supplies	113 68
97.	Crane Company	Engineer's supplies	4 75
98.	Kellogg Switchboard & Sup. Co...	Telegrams and supplies.....	32 72
99.	Armour & Co.....	Fresh and cured meats, but- terine	330 73
100.	Hibben-Hollweg & Co.....	Dry goods and notions.....	28 31
101.	The E. C. Dolmetsch Co.....	Amusements	32 28
102.	The American Steam Pump Co....	Engineer's supplies	28 80
103.	Cofield-Barber Gro. Co.....	Cereals, tobacco, salt, soap, vegetables	330 08
104.	Madison Machine Co.....	Engineer's supplies	57 59
105.	W. H. Rogers.....	Drugs, surgical instruments..	128 40
106.	N. Horuff & Sons.....	Dry goods and notions	53 70
107.	Elmer E. Scott Co.....	Breadstuffs, sugar, veg. syrups	813 41
108.	Madison Telephone Co.....	Telegrams and telephones....	9 45

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
109.	G. W. Waters.....	Tea	\$45 00
110.	Hoffman & Ritchie.....	Milk	222 52
111.	Otto Heuse	Repairs for patients.....	5 15
112.	The Herald Co.....	Advertising and printing.....	18 50
113.	W. B. Roberts & Co.....	Vegetables	16 46
114.	H. L. Devine.....	Traveling expenses	6 65
115.	J. L. Kegley.....	Provender	25 00
116.	Enoch Brown	Livestock, farm implements..	49 35
117.	John Eckert's Sons.....	Cooking utensils	70
118.	The Lodge Hdwe. Co.....	Hardware	1 10
119.	The J. E., C. F. Harper & Co...	Groceries	75
120.	Taylor-Hitz Co.....	Breadstuffs	270 00
121.	A. Wunderlich	Fresh fruits	17 75
122.	The Pearl Packing House.....	Fresh and cured meats, poultry	935 75
123.	Charles Kahn	House furnishings	3 00
124.	John Spelz	Groceries	4 90
125.	G. Albert Bayless.....	Livestock	15 00
126.	Mary E. Page.....	Livestock	45 00
127.	John E. Mersdorff.....	Harness and horse millinery.	3 30
128.	The Madison Daily Democrat....	Advertising	3 80
129.	Charles Fischer	Vehicles and repairs.....	19 45
130.	Raymond Kahn	Electrical supplies	12 75
131.	O. Oliver & Son.....	Vegetables and livestock....	31 50
132.	The Courier Co.....	Advertising	2 05
133.	F. W. Pfortner.....	Eggs, fresh and dried fruits.	13 70
134.	Hargan & Co.....	Farm implements, cooking utensils	22 90
135.	C. A. Stanton's Sons.....	Wearing apparel	3 00
136.	Brooks & Chapman.....	Amusements	3 00
137.	Rousch & Co.....	Printing and stationery.....	49
138.	R. M. Officer.....	Plowing and harvesting.....	21 72
139.	Peter Beerek & Son.....	Harness and horse millinery.	3 00
140.	Middleton & Wymond.....	Coal	2,534 96
141.	George S. Pleasants.....	Salary and expenses.....	84 40
142.	Eph. Inman	Salary and expenses.....	86 65
143.	Charles Cravens	Salary and expenses.....	81 50
144.	E. P. Busse, Med. Superintendent..	January payroll	3,437 30
145.	E. P. Busse	Incidental expense	41 39
146.	Armour & Co.....	Butterine and eggs	288 60
147.	Swift & Co.....	Fresh and cured meats.....	573 61
148.	Standard Oil Co.....	Oils	61 27
149.	The Babcock-Wilcox Co.....	Engineer's supplies	4 80
150.	Kellogg Switchboard & Sup. Co...	Electrical supplies	24
151.	The Royce Electric Co.....	Electrical supplies	2 00
152.	James B. Clow & Sons.....	Engineer's supplies	6 96
153.	The Worrell Mfg. Co.....	Sanitary supplies	100 00
154.	The Fleischmann Co.....	Breadstuffs	35 46
155.	The American Laundry Machy. Co.	Laundry supplies	6 00
156.	Fetta Water Softener Co.....	Sanitary supplies	57 00
157.	W. E. Beers.....	House furnishings	3 50
158.	Burroughs Adding Machine Co...	Furniture	375 00
159.	Max Woche & Son Co.....	Drugs, surgical instruments.	70 77
160.	Elmer E. Scott Co.....	Cereals, coffee, soaps, sugar.	515 45
161.	Cofield-Barber Gro. Co.....	Soaps, vegetables, tea, tobacco	222 42
162.	W. B. Roberts & Co.....	Oysters and vegetables	3 80
163.	F. W. Pfortner.....	Vegetables and groceries....	2 04
164.	Taff & Quinn.....	Vegetables	17 00
165.	Ferd. Hitz & Sons.....	Trees, shrubs, plants.....	5 70
166.	W. H. Rogers.....	Drugs, surgical instruments.	39 02

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
167.	Middleton & Wymond Co.	Coal	\$3,489 56
168.	The Pearl Packing House	Fresh and cured meats	193 00
169.	W. Trow Co.	Breadstuffs	330 00
170.	Taylor-Hitz Co.	Provender	22 00
171.	N. Horuff & Sons	Dry goods and notions	77 14
172.	C. A. Stanton's Sons	Wearing apparel	1 50
173.	Otto Heuse	Repairs for patients	10 75
174.	Hargan & Co.	Cooking utensils, hardware	7 00
175.	John Eckert's Sons	Cooking utensils	70
176.	P. J. Quinn	House furnishings	1 60
177.	Madison Machine Co.	Engineer's supplies	18 29
178.	Rousch & Co.	Printing and stationery	15
179.	W. H. Todd	House furnishings	2 16
180.	A. C. Hillabold	House furnishings	2 20
181.	The Courier Co.	Advertising	2 05
182.	The Herald Co.	Advertising	3 00
183.	The Daily Democrat	Advertising	4 75
184.	Madison Telephone Co.	Telephones and telegrams	20 00
185.	Mrs. S. E. Haigh	Undertaking and amusements	33 50
186.	Pearl Wells Haigh	Amusements	13 00
187.	J. L. Kegley	Provender and live stock	8 80
188.	Patrick Wade	Provender	2 20
189.	Edward Prenatt	Provender	35 38
190.	Walter H. Kahn	Live stock	7 30
191.	S. W. Reed	Live stock	2 50
192.	Peter Beerck	Harness and horse millinery	3 45
193.	John E. Mersdorf	Harness and horse millinery	3 55
194.	H. W. Rutherford	Blacksmithing	9 00
195.	A. Wunderlich	Fresh fruit	5 65
196.	J. H. Pohlmann	Pipe and fittings	45
197.	Wm. B. Burford	Books and stationery	108 10
198.	Westinghouse Electric Mfg. Co.	Electrical supplies	26 86
199.	The Chicago Projecting Co.	Amusements	180 00
200.	Antie Bros.	Blacksmithing	4 60
201.	Chas. Courtney	Blacksmithing	2 00
202.	M. C. Hunt	Laundry supplies	110 20
203.	Hoffman & Ritchie	Milk	127 00
204.	E. P. Busse, Medical Supt.	February payroll	3,411 82
205.	E. P. Busse	Incidental expense	37 11
206.	Swift & Co.	Meats, cheese, lard	618 11
207.	Armour & Co.	Butterine	155 25
208.	G. B. Yount	Live stock	475 00
209.	J. C. Perry & Co.	Vegetables	101 00
210.	The Sandborn Electric Co.	Electrical supplies	121 02
211.	The Garlock Packing Co.	Engineer's supplies	51 24
212.	The Royse Electric Co.	Electrical supplies	37 53
213.	Fetta Water Softener Co.	Sanitary supplies	57 00
214.	Vonnegut Hardware Co.	Hardware	16 56
215.	Chandler & Taylor Co.	Engineer's supplies	5 70
216.	Hollings-Smith Co.	Drugs, surgical instruments	1 59
217.	Clark & Co.	Tobacco	31 05
218.	W. K. Stewart Co.	Books and papers	5 00
219.	M. C. Hunt	Laundry supplies	16 80
220.	American Laundry Machinery Co.	Laundry supplies	2 50
221.	Central Film Service Co.	Music and amusements	7 50
222.	General Film Co.	Music and amusements	8 00
223.	The Fleischmann Co.	Breadstuffs	17 72
224.	A. Kiefer Drug Co.	Drugs and surgical inst'm'ts	55 80
225.	Pearl Packing House	Meats and eggs	982 92
226.	Hoffman & Ritchie	Milk	306 17
227.	J. A. Palmer	Live stock	175 00

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
228.	Peter F. Shuck.....	Live stock.....	\$220 00
229.	Edward Prenatt.....	Provender	62 12
230.	Cofield-Barber Grocery Co.....	Vegetables, soap, coffee.....	300 92
231.	Elmer E. Scott Co.....	Cereals, canned goods.....	303 84
232.	G. W. Waters.....	Tea	25 00
233.	W. B. Roberts & Co.....	Fish and oysters.....	4 55
234.	A. Wunderlich.....	Fresh fruits.....	8 70
235.	F. W. Pfortner.....	Sugar and groceries.....	6 55
236.	O. Oliver & Son.....	Vegetables and poultry.....	198 03
237.	Taff & Quinn.....	Vegetables and poultry.....	11 21
238.	Heise Milling Co.....	Breadstuffs	318 75
239.	Frederick Glass.....	Groceries	1 35
240.	Taylor-Hitz Co.....	Provender	24 00
241.	The Courier Co.....	Advertising	2 05
242.	Madison Daily Democrat.....	Advertising	3 00
243.	The Herald Co.....	Advertising and printing....	12 00
244.	Charles Courtney.....	Horseshoeing	3 00
245.	John B. Carr.....	Traveling expense.....	13 20
246.	Hargan & Co.....	Cooking utensils.....	8 17
247.	Madison Telephone Co.....	Telephones and telegrams....	7 30
248.	Standard Oil Co.....	Oils	3 90
249.	Otto Heuse.....	Repairs for patients.....	4 85
250.	The Lodge Hardware Co.....	Farm implements.....	6 55
251.	N. Horuff & Sons.....	Wearing apparel, dry goods..	92 47
252.	W. H. Rogers.....	Drugs, surgical inst'm'ts....	122 72
253.	Madison Machine Co.....	Engineer's supplies.....	25 41
254.	Middleton & Wymond Co.....	Coal	1,602 38
255.	L. E. Hitz.....	Trees, shrubs, plants.....	12 50
256.	C. A. Stanton's Sons.....	Wearing apparel.....	131 00
257.	W. H. Fewell & Sons.....	Farm implements.....	203 10
258.	J. E. Mersdorff.....	Harness and horse millinery.	83 70
259.	Emery Conway.....	Provender	139 65
260.	Marks & Benson.....	Wearing apparel.....	13 50
261.	Walter H. Kahn.....	Live stock.....	1 75
262.	W. H. Miller & Son.....	Lumber	20 00
263.	The Westinghouse Machine Co....	Engineer's supplies.....	60 80
264.	E. P. Busse, Medical Supt.....	March payroll.....	3,495 34
265.	E. P. Busse.....	Incidental expense.....	57 23
266.	A. Kiefer Drug Co.....	Drugs and surgical inst'm'ts.	56 15
267.	The Fraser Tablet Co.....	Drugs and surgical inst'm'ts.	1 07
268.	Max Woche & Son Co.....	Drugs and surgical inst'm'ts.	3 15
269.	Library Bureau.....	Books and papers.....	5 50
270.	W. B. Saunders Co.....	Books and papers.....	17 00
271.	The Johns Hopkins Press.....	Books and papers.....	5 00
272.	Central Film Service Co.....	Amusements	20 25
273.	The American Laundry Mach. Co..	Laundry supplies.....	20 75
274.	James B. Clow & Sons.....	Laundry supplies.....	5 52
275.	Kellogg Switchboard and Sup. Co..	Electrical supplies.....	90
276.	The Fleischmann Co.....	Breadstuffs	19 95
277.	Armour & Co.....	Butterine	180 38
278.	Armour Soap Works.....	Soaps	17 50
279.	Swift & Co.....	Cured meats.....	195 20
280.	The Cudahy Packing Co.....	Soaps	12 00
281.	Standard Oil Co.....	Oils	28 08
282.	Indiana Reformatory.....	Paints and oils.....	5 73
283.	Clark & Co.....	Tobacco	19 80
284.	Pennsylvania Lines.....	Traveling expense.....	100 00
285.	T. W. Bland & Bro.....	Farm implements.....	115 50
286.	G. W. Graston.....	Provender	25 00
287.	Edward Prenatt.....	Provender	106 88
288.	Peter Shuck.....	Live stock.....	158 65

No.	Claimant.	On Account of.	Amount.
289.	George Riggie.....	Live stock.....	\$100 00
290.	Oscar Hutton.....	Live stock.....	139 00
291.	Jerry McOsker.....	Traveling expense.....	18 50
292.	Hoffman & Ritchie.....	Milk	225 76
293.	Middleton & Wymond.....	Coal	2,256 78
294.	Wm. A. McGuire.....	Woodware	5 00
295.	Elmer E. Scott Co.....	Sugar, cereals, groceries.....	450 41
296.	Cofield-Barber Grocery Co.....	Soaps, cereals, dried fruit... ..	164 81
297.	F. W. Pfortner.....	Canned goods and groceries.. ..	12 02
298.	Pearl Packing House.....	Fresh meats and eggs.....	1,081 78
299.	J. E., C. F. Harper Co.....	Seeds and roots.....	65 55
300.	W. H. Rogers.....	Drugs and surgical inst'm'ts.	85 48
301.	C. G. Hunger.....	Seeds and roots.....	18 55
302.	N. Horuff & Sons.....	Toilet paper, dry goods.....	82 07
303.	C. A. Stanton's Sons.....	Wearing apparel.....	69 30
304.	Otto Heuse.....	Repairs for patients.....	5 15
305.	A. Wunderlich.....	Fresh fruits.....	3 15
306.	Hargan & Co.....	Cooking utensils, hardware... ..	21 33
307.	The Lodge Hardware Co.....	Tools and farm implements.. ..	17 55
308.	Madison Machine Co.....	Engineer's supplies.....	33 42
309.	W. H. Fewell.....	Repairs for patients.....	1 60
310.	Cal Francis.....	Blacksmithing	11 20
311.	W. B. Roberts & Co.....	Seeds, roots, vegetables.....	94 60
312.	Taff & Quinn.....	Vegetables and poultry.....	23 23
313.	O. Oliver & Son.....	Vegetables	182 87
314.	G. W. Waters.....	Tea	27 75
315.	Taylor-Hitz Co.....	Breadstuffs	311 25
316.	McKim & Cochran Furniture Co..	Furniture	250 00
317.	John E. Mersdorff.....	Harness and horse millinery.....	2 50
318.	Madison Telephone Co.....	Telegrams and telephones....	24 20
319.	H. L. Devine.....	Traveling expense.....	14 50
320.	A. J. G. Farry.....	Farm implements.....	3 50
321.	The Herald Company.....	Advertising and printing....	13 50
322.	The Courier Company.....	Advertising	9 10
323.	The Madison Daily Democrat....	Advertising	3 00
324.	W. W. Brindley.....	Live stock.....	175 00
325.	Chas. Cravens.....	Salary	75 00
326.	Elizabeth Pleasants.....	Salary and expense.....	53 40
327.	Eph. Inman.....	Salary and expense.....	85 40
328.	Fred. A. Sims.....	Salary and expense.....	96 80
329.	E. P. Busse, Medical Supt.....	April payroll.....	3,594 38
330.	E. P. Busse.....	Incidental expense.....	134 00
331.	The Elmer E. Scott Co.....	Soaps, syrups, groceries.....	614 96
332.	Cofield-Barber Grocery Co.....	Sugar, brooms, breadstuffs... ..	242 30
333.	G. W. Waters.....	Breadstuffs, tinware.....	4 10
334.	The Fleischmann Co.....	Breadstuffs	17 73
335.	Taylor-Hitz Co.....	Breadstuffs	336 25
336.	Capital City Dairy Co.....	Butterine	238 50
337.	The Pearl Packing House.....	Fresh and cured meats.....	984 85
338.	Swift & Co.....	Fresh and cured meats.....	116 05
339.	Wm. Kahn.....	Fresh meats.....	1 50
340.	Taff & Quinn.....	Poultry and vegetables.....	18 35
341.	O. Oliver & Son.....	Poultry and vegetables.....	8 66
342.	F. W. Pfortner.....	Canned goods and groceries.. ..	4 71
343.	The Geiger-Tinney Co.....	Coffee and tea.....	116 15
344.	Mrs. Mary Shepard.....	Vegetables	2 80
345.	A. Wunderlich.....	Fresh fruits.....	46 00
346.	Hoffman & Ritchie.....	Milk	210 71
347.	W. B. Roberts & Co.....	Seeds, roots, vegetables.....	27 65
348.	J. E., C. F. Harper & Co.....	Seeds and roots.....	1 00
349.	Patrick Wade.....	Provender, seeds, roots.....	52 40

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
350.	Edward Prenatt.....	Provender	\$65 36
351.	B. Johnson & Son.....	Provender	3 00
352.	Charles Kahn.....	Dairy supplies.....	90 00
353.	W. H. Rogers.....	Drugs, sanitary supplies.....	93 84
354.	Waters-Garland Co.....	Laundry and sanitary supplies	17 30
355.	H. Kohnstamm & Co.....	Laundry supplies.....	15 00
356.	Clark & Company.....	Tobacco	8 05
357.	N. Horuff & Sons.....	Wearing apparel, dry goods..	206 08
358.	Lauer Bros.....	Wearing apparel.....	26 42
359.	C. A. Stanton's Sons.....	Wearing apparel.....	207 47
360.	A. Marks & Son Co.....	Bedding	46 50
361.	John Eckert's Sons.....	Queensware	21 00
362.	Hargan & Co.....	Wire goods, hardware.....	46 66
363.	The Lodge Hardware Co.....	Farm implements, hardware..	21 64
364.	The John McGowan Co.....	Engineer's supplies.....	16 00
365.	Madison Machine Co.....	Engineer's supplies.....	8 92
366.	The Johnson Fdy. and Mach. Shops.	Hardware	7 50
367.	Raymond Kahn.....	Electrical supplies.....	17 45
368.	Madison Light and Railway Co....	Electrical supplies.....	6 00
369.	W. H. Miller & Sons.....	Lumber and paints.....	77 23
370.	F. W. Pfister.....	Brooms, mops, brushes.....	1 50
371.	C. M. Bottema.....	Live stock.....	911 40
372.	Charles Courtney.....	Blacksmithing	2 00
373.	Middleton & Wymond Co.....	Coal	1,489 69
374.	J. I. Holcomb Mfg. Co.....	Mops and brushes.....	5 29
375.	Walter H. Kahn.....	Harness and horse millinery..	3 85
376.	W. B. Saunders Co.....	Books and papers.....	5 50
377.	Harvey Publishing Co.....	Books and papers.....	3 00
378.	C. H. Rousch & Co.....	Printing and stationery.....	8 25
379.	The Democrat Co.....	Advertising	8 20
380.	N. A. Klein.....	House furnishings.....	7 25
381.	Wm. Hinspeter.....	Music and amusements.....	450 00
382.	Genre Transparency Co.....	Music and amusements.....	10 00
383.	Central Film Service Co.....	Music and amusements.....	15 25
384.	Ora M. Slater.....	Traveling expense.....	26 60
385.	J. L. Kegley.....	Traveling expense.....	1 00
386.	H. L. Devine.....	Traveling expense.....	23 85
387.	Dr. J. H. Pollock.....	Traveling expense.....	2 20
388.	The Madison Telephone Co.....	Telegrams and telephones....	3 90
389.	N. T. Drake.....	Music and amusements.....	399 55
390.	H. W. Rutherford.....	Blacksmithing	1 85
391.	Joe Steinberger.....	Live stock.....	26 75
392.	E. P. Busse, Medical Supt.....	May payroll.....	3,722 20
393.	E. P. Busse.....	Incidental expense.....	232 44
394.	The Elmer E. Scott Co.....	Groceries, canned goods.....	745 69
395.	Coffield-Barber Grocery Co.....	Soaps, cereals, coffee, etc....	201 14
396.	O. Oliver & Son.....	Vegetables, eggs, poultry....	303 01
397.	Taff & Quinn.....	Vegetables	225 00
398.	W. B. Roberts & Co.....	Vegetables and fruits.....	9 00
399.	A. Wunderlich.....	Fresh fruits.....	10 60
400.	Swift & Co.....	Cured meats, vegetables.....	66 37
401.	Armour & Co.....	Cured meats.....	76 32
402.	The Pearl Packing House.....	Fresh and cured meats.....	1,122 19
403.	Hoffman & Ritchie.....	Milk	205 35
404.	Capital City Dairy Co.....	Butterine	198 00
405.	Andrew Augustin.....	Eggs	2 88
406.	The Geiger-Tinney Co.....	Coffee and tea.....	43 77
407.	J. E. C. F. Harper & Co.....	Seeds and roots.....	4 30
408.	Patrick Wade.....	Seeds and roots.....	3 00
409.	Ira Montgomery.....	Seeds and roots.....	12 00
410.	C. G. Hunger.....	Seeds and roots, provender..	9 53

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
411.	F. W. Pfortner.....	Vegetables	\$0 75
412.	A. Kiefer Drug Co.....	Drugs, surgical instruments..	73 55
413.	W. H. Rogers.....	Drugs, oils, soaps, etc.....	166 60
414.	The Fleischmann Co.....	Breadstuffs	22 16
415.	Taylor-Hitz Co.....	Breadstuffs, provender.....	337 25
416.	N. Horuff & Sons.....	Wearing apparel.....	657 72
417.	Marks-Benson Co.....	Wearing apparel.....	12 50
418.	C. A. Stanton's Sons.....	Wearing apparel.....	223 00
419.	Otto Heuse.....	Repairs for patients.....	15 70
420.	Hargan & Co.....	Queensware, farm implements.	62 60
421.	The Lodge Hardware Co.....	Wire goods, farm implements.	50 88
422.	Madison Machine Co.....	Engineer's supplies.....	345 53
423.	Madison Light and Railway Co...	Hardware	11 25
424.	H. W. Johns Manville Co.....	Electrical supplies.....	29 08
425.	Vonnegut Hardware Co.....	Hardware	1 48
426.	John Eckert's Sons.....	Farm implements, queensware.	48 00
427.	A. C. Hillabold.....	Furniture, house furnishings.	92 00
428.	Frederick Glass.....	Amusements	75
429.	The Sanborn Electric Co.....	Electrical supplies.....	12 50
430.	Proctor & Gamble Dist. Co.....	Laundry supplies.....	100 38
431.	Clark & Co.....	Tobacco	8 05
432.	Standard Oil Co.....	Oils	57 65
433.	Meyer Bros. Drug Co.....	Oils	47 00
434.	S. H. Stewart.....	Vehicles, farm implements...	91 00
435.	C. P. Richardson.....	Farm implements.....	36 00
436.	Dihammer Bros.....	Live stock.....	18 00
437.	Drs. McGlasson & Rudolph.....	Live stock.....	4 00
438.	Walter H. Kahn.....	Harness and horse millinery..	6 50
439.	Charles Courtney.....	Blacksmithing	3 20
440.	Middleton & Wymond.....	Coal	1,018 99
441.	Fred. W. Pfister.....	Trees, shrubs, plants.....	10 59
442.	The Courier Co.....	Advertising	12 30
443.	The Herald Co.....	Printing and advertising....	22 50
444.	The Democrat Co.....	Advertising	20 35
445.	Wm. B. Burford.....	Printing	176 52
446.	Pearl Wells Haigh.....	Music and amusements.....	152 00
447.	The Central Film Service Co.....	Amusements	15 00
448.	The Madison Telephone Co.....	Telephones and telegrams....	3 75
449.	John G. Hitz.....	Vegetables	13 80
450.	C. H. Rousch & Co.....	Books and papers.....	8 50
451.	Fry Bros. & Co.....	Laundry supplies.....	17 00
452.	Fetts Water Softener Co.....	Engineer's supplies.....	57 00
453.	John A. Beach.....	Blacksmithing	3 50
454.	The Johnson Fdry. and Mach. Co..	Farm implements.....	54 43
455.	E. P. Busse, Medical Supt.....	June payroll.....	3,739 41
456.	E. P. Busse.....	Incidental expense.....	84 86
457.	The Elmer E. Scott Co.....	Tobacco, canned goods.....	768 96
458.	Cofield-Barber Grocery Co.....	Coffee, Syrup, etc.....	434 76
459.	W. B. Roberts & Co.....	Oils, fresh fruits, vegetables.	90 71
460.	Taff & Quinn.....	Fresh fruits, vegetables.....	24 70
461.	A. Wunderlich.....	Fresh fruits.....	10 90
462.	John G. Hitz.....	Fresh fruits.....	7 25
463.	F. W. Pfortner.....	Fresh fruits, vegetables, cereals	2 95
464.	O. Oliver & Son.....	Poultry and vegetables.....	463 18
465.	G. W. Waters.....	Tea, fresh fruits.....	29 10
466.	The Geiger-Tinney Co.....	Coffee, etc.....	26 95
467.	Taylor-Hitz Co.....	Breadstuffs	363 85
468.	The Fleischmann Co.....	Breadstuffs	17 73
469.	The Capital City Dairy Co.....	Butterine	247 50
470.	Hoffman-Ritchie	Milk	187 65

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
471.	The Pearl Packing House.....	Fresh meats, etc.....	\$818 37
472.	Swift & Co.....	Groceries	10 25
473.	J. E., C. F. Harper & Co.....	Seeds and roots.....	75
474.	C. G. Hunger.....	Seeds and roots.....	5 90
475.	W. H. Rogers.....	Drugs, surgical instruments..	66 98
476.	A. Kiefer Drug Co.....	Drugs, surgical instruments..	10 47
477.	Max Woche & Son Co.....	Drugs and surgical inst'm'ts.	110 25
478.	Clark & Co.....	Tobacco	15 75
479.	Standard Oil Co.....	Oils	54 06
480.	Middleton & Wymond.....	Coal	544 94
481.	Madison Machine Co.....	Boiler supplies.....	6 35
482.	Mississippi Glass Co.....	Boiler supplies.....	145 20
483.	Hargan & Co.....	Tools, hardware, cutlery etc.	4 50
484.	The Lodge Hardware Co.....	Farm implements, etc.....	47 87
485.	John Eckert's Sons.....	Farm implements, etc.....	112 65
486.	Charles Fischer.....	Vehicles	19 95
487.	H. W. Johns-Manville Co.....	Engineer's supplies.....	8 35
488.	The Garlock Packing Co.....	Engineer's supplies.....	29 81
489.	Cal Francis.....	Blacksmithing	12 45
490.	Barrett Mfg. Co.....	Cold storage supplies.....	26 52
491.	Indianapolis Electric Supply Co..	Electrical supplies.....	165 23
492.	M. C. Hunt.....	Laundry supplies.....	78 45
493.	Armour Soap Works.....	Soaps	29 00
494.	American Laundry Machinery Co..	Laundry supplies.....	12 10
495.	Drs. McGlasson & Rudolph.....	Live stock.....	4 00
496.	L. S. Bear.....	Live stock.....	2 00
497.	Ira Gray, Jr.....	Live stock.....	129 00
498.	John E. Mersdorff.....	Harness and horse millinery..	88 40
499.	Walter H. Kahn.....	Harness and horse millinery..	2 70
500.	Edward Prenatt.....	Provender	93 58
501.	W. H. Miller & Sons.....	Lumber, hardware, etc.....	165 52
502.	F. Grote Mfg. Co.....	Furniture	590 00
503.	N. Horuff & Sons.....	Wearing apparel, etc.....	197 89
504.	Lauer Bros.....	Wearing apparel.....	196 80
505.	C. A. Stanton's Sons.....	Wearing apparel.....	12 40
506.	Otto Heuse.....	Repairs for patients.....	4 95
507.	C. H. Rousch & Co.....	Stationery, amusements.....	9 70
508.	Central Film Service Co.....	Amusements	15 00
509.	Mrs. S. E. Haigh.....	Undertaking	36 00
510.	The Courier Co.....	Advertising	2 05
511.	The Democrat Co.....	Advertising	3 00
512.	The Madison Telephone Co.....	Telephone and telegrams....	24 05
513.	John B. Lawler.....	House furnishings.....	73 50
514.	Krebs Clothing Co.....	Wearing apparel.....	590 25
515.	Pulse & Porter.....	Building repairs.....	137 17
516.	Eph. Inman.....	Salary and expense.....	82 67
517.	James W. Lilly.....	Salary and expense.....	99 95
518.	Charles Cravens.....	Salary	75 00
519.	Francis M. Griffith.....	Salary and expense.....	81 40
520.	E. P. Busse, Medical Supt.....	July payroll.....	3,901 45
521.	E. P. Busse.....	Incidental expense.....	115 48
522.	The Elmer E. Scott Co.....	Syrups, canned goods, etc....	865 25
523.	Cofield-Barber Grocery Co.....	Brooms, cereals, etc.....	290 32
524.	O. Oliver & Son.....	Vegetables, poultry, butterine.	335 48
525.	F. W. Pfortner.....	Vegetables, cereals, fresh fruits	6 35
526.	Taff & Quinn.....	Fresh fruits, vegetables.....	11 90
527.	A. Wunderlich.....	Fresh fruits.....	10 40
528.	Taylor-Hitz Co.....	Breadstuffs, provender.....	361 25
529.	The Fleischmann Co.....	Breadstuffs	20 90
530.	The Pearl Packing Co.....	Fresh and cured meats, eggs..	760 03

No.	Claimant.	On Account of.	Amount.
531.	Armour & Co.	Cured meats.	\$46 10
532.	Swift & Co.	Cured meats, vegetables.	103 01
533.	George Leap.	Fish and oysters.	27 50
534.	The Capital City Dairy Co.	Butterine	220 50
535.	G. W. Waters.	Coffee	144 00
536.	The Geiger-Tinney Co.	Coffee	97 62
537.	Hoffman & Ritchie.	Milk	191 18
538.	J. E., C. F. Harper & Co.	Seeds and roots.	12 10
539.	W. H. Rogers.	Drugs, surgical instruments.	77 44
540.	Max Woehel & Son Co.	Drugs, surgical instruments.	15 30
541.	N. Horaff & Sons.	Carpets, curtains, etc.	129 65
542.	Middleton & Wymond Co.	Coal	925 54
543.	Standard Oil Co.	Oils	28 71
544.	Waters-Garland Co.	Laundry supplies.	143 81
545.	U. S. Laundry Soap Supply Co.	Laundry supplies.	136 93
546.	Indianapolis Electric Supply Co.	Electrical supplies.	36 66
547.	Madison Light and Railway Co.	Engineer's supplies.	4 30
548.	The Westinghouse Machine Co.	Boiler supplies.	36 67
549.	Madison Machine Co.	Pipe and fittings.	96 16
550.	Pulse & Porter.	Pipe and fittings.	462 77
551.	American Can Co.	Tinware	315 25
552.	The Johnson Fdy. and Mach. Shops.	Hardware	4 75
553.	Hargan & Co.	Cooking utensils, hardware.	8 92
554.	H. W. Rutherford.	Hardware	4 50
555.	John Eckert's Sons.	Furniture and queensware.	28 50
556.	The Cincinnati Mfg. Co.	Repairs	748 00
557.	The Lodge Hardware Co.	Farm implements.	30 18
558.	C. P. Richardson.	Farm implements.	51 25
559.	W. H. Fewell & Sons.	Farm implements, fertilizer.	445 70
560.	Charles Fischer.	Vehicles	17 85
561.	Charles Courtney.	Blacksmithing	2 40
562.	John E. Mersdorff.	Harness and horse millinery.	4 85
563.	Peter Beerck & Sons.	Harness and horse millinery.	4 15
564.	Walter H. Kahn.	Live stock.	4 20
565.	Jay Cooke.	Live stock.	175 00
566.	Otto Heuse.	Repairs for patients.	8 10
567.	Central Film Service Co.	Amusements	22 50
568.	The Courier Co.	Advertising	2 05
569.	The Democrat Co.	Advertising	3 00
570.	The Madison Telephone Co.	Telegrams and telephones.	5 05
571.	Barrett Mfg. Co.	Cold storage supplies.	27 04
572.	George E. Francisco.	Live stock.	50 75
573.	E. P. Busse, Medical Supt.	August payroll.	4,030 18
574.	E. P. Busse.	Incidental expense.	92 72
575.	The Elmer E. Scott Co.	Dried fruit, syrup, vegetables.	521 37
576.	Cofield-Barber Grocery Co.	Dried fruit, tobacco, etc.	412 73
577.	W. B. Roberts & Co.	Fresh fruit.	1 25
578.	Taff & Quinn.	Fresh fruit.	5 35
579.	O. Oliver & Son.	Vegetables, poultry.	424 47
580.	Andrew Augustin.	Eggs	1 02
581.	F. W. Pfortner.	Vegetables, canned goods.	6 97
582.	A. Wunderlich.	Fresh fruit.	8 55
583.	Taylor-Hitz Co.	Breadstuffs, provender.	312 75
584.	The Fleischmann Co.	Breadstuffs	17 73
585.	Perfection Biscuit Co.	Breadstuffs	28 11
586.	Armour & Co.	Cheese	43 21
587.	Swift & Co.	Cured meats.	27 30
588.	The Pearl Packing House.	Fresh and cured meats, eggs.	1,024 38
589.	George Leap.	Fish and oysters.	30 90
590.	G. W. Waters.	Coffee, hardware.	216 60
591.	The Capital City Dairy Co.	Butterine	297 00

<i>No.</i>	<i>Claimant.</i>	<i>On Account of.</i>	<i>Amount.</i>
592.	Hoffman & Ritchie.....	Milk	\$195 54
593.	C. G. Hunger.....	Seeds and roots.....	76 00
594.	J. E., C. F. Harper & Co.....	Seeds and roots.....	6 50
595.	W. H. Rogers.....	Drugs, surgical instruments..	118 86
596.	W. H. Peters.....	Music and amusements.....	1 50
597.	N. Horuff & Sons.....	Sewing room supplies, etc...	446 62
598.	U. S. Laundry Soap and Supply Co.	Laundry supplies.....	108 79
599.	Middleton & Wymond Co.....	Coal	468 81
600.	Standard Oil Co.....	Oils	71 19
601.	Hargan & Co.....	Farm implements, etc.....	90 50
602.	The Lodge Hardware Co.....	Tools, furniture, cutlery....	43 82
603.	John Eckert's Sons.....	Sanitary supplies, queensware.	150 65
604.	Madison Light and Railway Co...	Engineer's supplies.....	75
605.	The John H. McGowan Co.....	Engineer's supplies.....	132 50
606.	Atwood & Morrill.....	Boiler supplies.....	7 00
607.	Indianapolis Electrical Supply Co.	Electrical supplies.....	24 19
608.	John Downey.....	Blacksmithing	2 40
609.	Cal. Francis.....	Blacksmithing	8 80
610.	Charles Fischer.....	Vehicles	8 75
611.	W. H. Miller & Sons.....	Lumber	351 44
612.	Robert Burton.....	Provender	69 72
613.	W. Trow Co.....	Provender	48 00
614.	Clark & Co.....	Tobacco	8 05
615.	X-Ray Incubator Co.....	Poultry	25 00
616.	The E. C. Brown Co.....	Farm implements.....	127 20
617.	John A. Beach.....	Farm implements.....	1 50
618.	C. M. Bottema.....	Live stock.....	1,035 00
619.	Walter H. Kahn.....	Live stock, fertilizer.....	3 00
620.	John E. Mersdorff.....	Harness and horse millinery.	2 15
621.	Geo. C. Vail & Sons.....	Furniture	53 30
622.	S. E. Haigh.....	Music and amusements.....	388 60
623.	Charles Kahn.....	Queensware	4 30
624.	Tripp Bros.....	Disinfectants	15 00
625.	C. H. Rousch & Co.....	Books, papers, printing, etc..	26 30
626.	The Madison Daily Democrat.....	Advertising, printing.....	7 75
627.	The Courier Company.....	Advertising	2 05
628.	The Herald Co.....	Advertising, printing.....	12 50
629.	W. B. Ray.....	Package	21 00
630.	Jerry McOsker.....	Traveling expense.....	10 20
631.	Oliver B. Mitchell.....	Traveling expense.....	11 10
632.	E. E. Miller.....	Traveling expense.....	18 22
633.	Central Film Service Co.....	Music and amusements.....	7 50
634.	The Madison Telephone Co.....	Telephones and telegrams...	4 25
635.	Louis Spicer.....	Traveling expense.....	2 00
636.	Pulse & Porter.....	Pipe and fittings.....	133 78
637.	E. P. Busse, Medical Supt.....	September payroll.....	4,235 48
638.	E. P. Busse.....	Incidental expense.....	38 62
639.	The Elmer E. Scott Co.....	Cereals, dried fruits, etc....	525 70
640.	Coffield-Barber Grocery Co.....	Sugar, tobacco, etc.....	158 17
641.	O. Oliver & Son.....	Vegetables	312 00
642.	Taff & Quinn.....	Fresh fruit.....	8 00
643.	W. B. Roberts & Co.....	Fresh fruit.....	2 75
644.	A. Wunderlich.....	Fresh fruit.....	6 85
645.	The Fleischmann Co.....	Breadstuffs	9 50
646.	The Pearl Packing Co.....	Fresh and cured meats.....	1,015 72
647.	Armour & Co.....	Cured meats.....	51 04
648.	The Capital City Dairy Co.....	Butterine	189 00
649.	J. F. Craig.....	Seeds and roots.....	12 00
650.	John M. Sample.....	Seeds and roots.....	70 90
651.	Patrick Wade.....	Seeds and roots, provender..	64 60
652.	Edward M. Prenatt.....	Provender	46 83

653.	Clark & Co.....	Tobacco	\$16 10
654.	W. H. Rogers.....	Drugs, surgical instruments..	220 06
655.	Lauer Bros.....	Wearing apparel.....	196 60
656.	N. Horuff & Sons.....	Sewing room supplies, etc...	1,044 41
657.	C. A. Stanton's Sons.....	Wearing apparel.....	290 62
658.	Daily & Roth Co.....	Bedding, wearing apparel...	233 29
659.	A. Marks & Son Co.....	Bedding	144 00
660.	Waters-Garland Co.....	Laundry supplies.....	34 84
661.	The American Laundry Mach. Co..	Laundry supplies.....	37 34
662.	Raymond Kahn.....	Laundry supplies.....	162 32
663.	Charles Fischer.....	Furniture	4 00
664.	Mrs. S. E. Haigh.....	Undertaking	12 00
665.	F. W. Scheike.....	Woodenware and crockery...	2 20
666.	The Cincinnati Mfg. Co.....	Sanitary supplies.....	953 39
667.	Hargan & Co.....	Tools, woodenware, etc.....	12 90
668.	The Lodge Hardware Co.....	Hardware, etc.....	25 06
669.	John Eckert's Sons.....	Building repairs, elec. sup...	68 21
670.	W. H. Miller & Sons.....	Building repairs, oils, paints.	677 24
671.	Fetta Water Softener.....	Sanitary supplies.....	57 00
672.	H. W. Johns-Manville Co.....	Engineer's supplies.....	60 16
673.	The Leavitt Mach. Co.....	Engineer's supplies.....	137 50
674.	Madison Machine Co.....	Boiler supplies.....	220 25
675.	Clyde Tool Co.....	Boiler supplies.....	129 00
676.	Middleton-Wymond Co.....	Coal	1,023 15
677.	F. W. Pfortner.....	Paints and oils.....	1 75
678.	H. W. Rutherford.....	Blacksmithing	1 25
679.	W. H. Fewell.....	Farm implements.....	6 45
680.	John E. Mersdorff.....	Harness and horse millinery.	16 30
681.	Walter H. Kahn.....	Live stock.....	1 60
682.	Willie Essig.....	Live stock.....	30 00
683.	Dan Hoffman.....	Live stock.....	95 00
684.	Howard Hand.....	Live stock.....	42 50
685.	Lewis Beckmann.....	Live stock.....	45 00
686.	John R. Thomas.....	Live stock.....	50 00
687.	Jos. Bumen.....	Live stock.....	146 00
688.	Hoffman & Ritchie.....	Milk	161 88
689.	Charles Kahn.....	Building repairs.....	37 57
690.	Pulse & Porter.....	Building repairs, pipe and fittings	732 16
691.	Cal. Francis.....	Blacksmithing	3 80
692.	C. H. Rousch & Co.....	Books and papers, amusem'ts.	169 90
693.	The Courier Co.....	Advertising, books, papers...	4 05
694.	The Herald Co.....	Books and papers.....	2 00
695.	The Madison Daily Democrat....	Advertising, books, papers...	5 00
696.	J. E. Oliver.....	Music and amusements.....	6 00
697.	George Antle.....	Music and amusements.....	2 00
698.	Central Film Service Co.....	Music and amusements.....	15 00
699.	The Madison Telephone Co.....	Telephones and telegrams...	4 35
700.	Edward S. Coyle.....	Parkage	70 20
701.	Caldwell & Drake.....	Building repairs.....	6 50
702.	F. M. Griffith.....	Salary and expense.....	93 30
703.	Eph. Inman.....	Salary and expense.....	87 10
704.	James W. Lilly.....	Salary and expense.....	81 80
705.	Charles Cravens.....	Salary and expense.....	98 70

Total \$125,618 44

Uniform Statistical Tables with Medical
Superintendent's Report

TABLE A.

MOVEMENT OF POPULATION.

YEAR.	Received.		Died.		Transferred from Other Hospitals.				Enrolled at Close of Year.		Temporarily Absent.		Daily Average Attendance.		
	Men.	Women.	Men.	Women.	Central.		Eastern.		Men.	Women.	Men.	Women.	Men.	Women.	Total.
					Men.	Women.	Men.	Women.							
1911.....	203	128	42	25	0	0	39	24	376	362	27	19	287,742	321,983	603,725

TABLE B.

COUNTY REPRESENTATION OF ADMITTED FISCAL YEAR 1911.

Movement of Population, October 1, 1910 to September 30, 1911.

COUNTY.	Received.		Furloughed.		Died.		Present at Close of Year.	
	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.
Bartholomew.....	11	8	3	4	2	2	23	29
Brown.....	2	0	2	0	0	0	5	7
Clark.....	9	9	5	4	6	2	34	34
Clay.....	2	1	0	0	0	0	2	2
Dearborn.....	16	8	3	3	3	3	27	27
Decatur.....	8	3	0	1	3	6	17	16
Fayette.....	20	10	1	1	0	0	19	9
Floyd.....	14	13	5	1	5	2	33	46
Jackson.....	10	6	3	7	5	1	26	25
Jefferson.....	16	12	5	2	6	1	17	38
Jennings.....	5	4	3	1	1	1	12	10
Harrison.....	0	2	0	0	0	0	0	2
Lawrence.....	17	7	4	5	3	1	28	19
Monroe.....	5	7	6	2	4	1	13	14
Morgan.....	4	0	0	0	0	0	3	0
Ohio.....	1	0	0	0	0	1	2	3
Owen.....	1	0	0	0	0	0	1	0
Ripley.....	14	4	7	1	0	0	25	21
Rush.....	25	17	1	1	1	0	23	16
Scott.....	3	0	0	1	1	0	7	8
Switzerland.....	5	6	1	0	1	3	14	14
Vigo.....	12	9	0	1	1	0	11	7
Washington.....	2	2	2	1	0	1	7	15
Total.....	203	128	51	36	42	25	349	362

TABLE C.

Psychoses of Admitted, Fiscal Year 1911.

Psychoses—	Men	Women.	Total.
Acute confusional insanity	4	0	4
Alcoholic dementia	3	0	3
Alcoholic halucinosiis	3	0	3
Alcoholism chronic	1	2	3
Epileptic insanity	23	8	31
Hypochondriasis	1	0	1
Imbecility	2	7	9
Melancholia	6	3	9
Manic depressive	49	38	87
Involuntional	0	7	7
Organic dementia	8	1	9
Paranoia	4	1	5
Paresis	13	4	17
Pre-senile dementia	2	0	2
Pre-senile delusional insanity	1	0	1
Praecox dementia	45	31	76
Senile dementia	34	26	60
Traumatic insanity	2	0	2
Total	203	128	331

TABLE D.

Occupation of Admitted, Fiscal Year 1911.

Occupation—	Men.	Women.	Total.
Baker	3	0	3
Barber	2	0	2
Boat steward.....	1	0	1
Cabinet maker.....	2	0	2
Carpenter	2	0	2
Carriage maker.....	2	0	2
Cement worker.....	1	0	1
Cigar maker.....	3	0	3
Clerk	2	1	3
Clergyman	1	0	1
Domestic	0	13	13
Druggist	1	0	1
Engineer	1	0	1
Farmer	82	0	82
Farm hand.....	1	0	1
Ferryman	1	0	1
Fireman	1	0	1
Housewife	0	62	62
Iron molder.....	2	0	2
Jeweler	1	0	1
Laborer	44	0	44
Liveryman	2	0	2
Mason	2	0	2
Marble polisher.....	1	0	1
Mechanic	5	0	5
Mill hand.....	1	0	1
Merchant	2	0	2
Musician	1	1	2
Milliner	0	2	2
None	13	20	33
Not known.....	10	17	27
Painter	1	0	1
Physician	1	0	1
Plasterer	1	0	1
R. R. engineer.....	1	0	1
Saleslady	0	1	1
Seamstress	0	4	4
Shoemaker	2	0	2
School teacher.....	1	2	3
Steam driller.....	1	0	1
Stenographer	0	4	4
Student	0	1	1
Tailor	2	0	2
Teamster	1	0	1
Wheelwright	1	0	1
Wool sorter	1	0	1
Total	201	128	331

TABLE E.

Approximate Ages of Those Who Died, Fiscal Year 1911.

Ages—	Men.	Women.	Total.
Between fifteen and twenty years.....	0	0	0
Between twenty and thirty years.....	3	3	6
Between thirty and forty years.....	3	3	6
Between forty and fifty years.....	9	3	12
Between fifty and sixty years.....	9	4	13
Between sixty and seventy years.....	7	3	10
Between seventy and eighty years.....	6	6	12
Between eighty and ninety years.....	3	2	5
Unknown	2	1	3
Total	42	25	67

TABLE F.

Appropriation.

Maintenance Fund—Regular (Act approved March 9, 1909), per capita
\$225.00.

Amount available for current year.....\$135,826.195

Expended during year 135,618.44

Balance reverting to State treasury..... \$207.755

Clothing fund (Act approved March 4, 1911) \$2,000.00

Balance reverting to State treasury..... 2,000.00

Total \$2,207.755

Summary of Expenditures from Maintenance Fund.

Subsistence	\$36,048 05
Salaries and wages	44,568 98
Wearing apparel	5,010 13
Office, domestic and outdoor expenses.....	47,058 64
Repairs and improvements.....	2,932 64
Total	\$135,618 44

TABLE G.

OFFICERS AND EMPLOYEES, SEPTEMBER 30, 1911.

Position.	Number Employed.	Salary per Month.	Additional Compensation.
Trustees.....	4	\$25 00	Non-resident.
Medical superintendent.....	1	250 00	Board and laundry.
Assistant physicians.....	2	100 00	Board and laundry.
Intern.....	1	50 00	Board and laundry.
Chief clerk.....	1	95 00	Board and laundry.
Storekeeper.....	1	75 00	Board and laundry.
Matron.....	1	50 00	Board and laundry.
Chaplain.....	1	25 00	Non-resident.
Secretary.....	1	40 00	Board and laundry.
Night watch.....	1	20 00	Board and laundry.
General watch.....	1	35 00	Non-resident.
Usher and telephone operator.....	1	20 00	Board and laundry.
Supervisors.....	2	40 00	Board and laundry.
Clothing clerks.....	2	30 00	Board and laundry.
Dining hall attendants.....	2	24 00	Board and laundry.
Dining hall attendant.....	1	22 00	Board and laundry.
Dining hall attendant.....	1	14 00	Board and laundry.
Attendants.....	14	24 00	Board and laundry.
Attendants.....	50	22 00	Board and laundry.
Attendants.....	9	20 00	Board and laundry.
Chief engineer.....	1	90 00	Board and laundry.
Assistant engineers.....	2	50 00	Board and laundry.
Pumping station engineer.....	1	50 00	Non-resident.
Firemen.....	4	35 00	Board and laundry.
Engineer helpers.....	2	35 00	Board and laundry.
Plumber.....	1	35 00	Board and laundry.
Charge of cold storage.....	1	35 00	Board and laundry.
Foreman of farm.....	1	60 00	House.
Farm hands.....	3	30 00	Non-resident.
Farm hand.....	1	15 00	Non-resident.
Farm hand.....	1	10 00	Non-resident.
Baker.....	1	50 00	Board and laundry.
Chief cook.....	1	60 00	Board and laundry.
Assistant cook.....	1	20 00	Board and laundry.
Diet cook.....	1	22 00	Board and laundry.
Diet cook.....	1	18 00	Board and laundry.
Superintendent's cook.....	1	20 00	Board and laundry.
Officer's cook.....	1	18 00	Board and laundry.
Kitchen help.....	3	16 00	Board and laundry.
Housekeeper.....	1	40 00	Board and laundry.
Foreman of laundry.....	1	50 00	Board and laundry.
Laundryman.....	1	18 00	Board and laundry.
Laundry help.....	2	16 00	Board and laundry.
Laundress.....	3	14 00	Board and laundry.
Porter.....	1	15 00	Board and laundry.
Housemaid.....	1	20 00	Board and laundry.
Housemaid.....	1	14 00	Board and laundry.
Waitresses.....	6	14 00	Board and laundry.
Dairyman.....	1	50 00	House.
Hostler.....	1	35 00	House.
Carpenter.....	1	60 00	Non-resident.
Carpenter.....	1	40 00	Board and laundry.
Seamstress.....	1	22 00	Board and laundry.
Gardener.....	1	30 00	Board and laundry.
Outdoor supervisor.....	1	30 00	Board and laundry.
Painter.....	1	40 00	Board and laundry.

TABLE H.

Production of Farm and Garden from October 1, 1910, to September 30, 1911.

2,003	dozen corn, roasting ears, at 10c per doz.....	\$200 30
150	squash, at 2c each.....	3 00
234	bushels string beans, at 80c per bu.....	187 20
1,169	watermelons, at 10c each.....	116 90
2,233	cantaloupes, at 5c each.....	111 65
108	bushels tomatoes, at 30c per bu.....	32 40
2,768	bushels pears, at 80c per bu.....	2,214 40
30	bunches beets, at 5c per bunch.....	1 50
2,458	bunches radishes, at 5c per bunch.....	122 90
108½	bushels sweet potatoes, at \$1.00 per bu.....	108 50
740½	bushels apples, at 80c per bu.....	592 40
198	bushels turnips, at 40c per bu.....	79 20
933	bushels corn, ear, at 35c per bu.....	326 55
367	quarts blackberries, at 7c per qt.....	25 69
2,946	pounds lettuce, at 7c per lb.....	206 22
321	bushels potatoes, at \$1.25 per bu.....	401 25
1,529	bunches onions, at 2c per bunch.....	30 58
2,171	bunches rhubarb, at 2c per bunch.....	43 42
2,187	pounds cabbage, at 1c per lb.....	21 87
16	quarts strawberries, at 10c per qt.....	1 60
200	pumpkins, at 5c each.....	10 00
21,519	pounds milk, at 2½c per lb.....	537 97
3,066	pounds pork, at 11c per lb.....	337 26
715	pounds bacon, at 12c per lb.....	85 80
1,132	pounds lard, at 22c per lb.....	249 04
296	pounds lard, at 10c per lb.....	29 60
315	pounds ham, at 15c per lb.....	47 25
157	pounds pork, at 15c per lb.....	23 55
206	pounds pork, at 17c per lb.....	35 02
5,919	pounds pork, at 12c per lb.....	710 28
367	pounds chickens, at 10c per lb.....	36 70
423½	pounds chickens, at 16c per lb.....	67 76
51	pounds chickens, at 17c per lb.....	8 67
16	pounds chickens, at 17½c per lb.....	2 80
10½	pounds chickens, at 18c per lb.....	1 89
52½	pounds chickens, at 16½c per lb.....	8 62
13	pounds chickens, at 15c per lb.....	1 95
30	pounds chickens, at 14c per lb.....	4 20
3½	pounds chickens, at 25c per lb.....	88
28½	pounds chickens, at 23c per lb.....	6 49
42	pounds chickens, at 22c per lb.....	9 24
5,246	pounds hay, at 80c per cwt.....	41 96

14,961 pounds hay, at 40c per cwt.....	\$79 84
10,104 pounds oats, at 1¼c per lb.....	126 30
Total	<u>\$7,270 60</u>
Products of farm and garden consumed in kitchen.....	\$6,715 95
Products of farm and garden consumed in outdoor depts.	554 65
	<u>————— \$7,270 60</u>

TABLE I.

Receipts for Fiscal Year 1910-1911.

October 4, 23,378 pounds pears sold at 80c per 100.....	\$187 02
October 11, 26,522 pounds pears sold at 80c per 100.....	212 17
May 1, 2,250 pounds bones sold at 35c per 100.....	7 88
Rent one acre ground to J. Layton.....	8 00
Total	<u>\$415 07</u>

TABLE J.

Earnings Deposited with State Treasurer.

	Amount.	Quietus.
November 29, 1910.....	\$407 19	2909
June 5, 1911.....	7 88	4014
Total	<u>\$415 07</u>	

SUMMARY OF INVENTORY, SEPTEMBER 30, 1911.

Personal Property--

Administration building		\$9,134 03
Wards—men	\$17,890 62	
Wards—women	19,290 83	
Hospital—men	1,897 45	
Hospital—women	2,481 02	
Infirmery—men	1,977 92	
Infirmery—women	2,172 93	
Doctors, hospital quarters—men	135 03	
Doctors, hospital quarters—women	138 73	

Total		\$45,984 53
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Rear center assembly hall, rest room.....	\$2,707 41	
Rear center south, 2d and 3d floors.....	832 78	
Rear center east and west sleeping apt....	3,083 53	
Rear center officers' dining room.....	405 09	
Rear center general dining room.....	984 16	
Rear center men's dining room.....	1,934 44	
Rear center women's dining room.....	1,864 05	
Rear center officers' kitchen	228 04	
Rear center general kitchen	5,204 08	

Total		\$17,243 58
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Men's diet kitchen.....	\$581 41	
Women's diet kitchen.....	838 97	

Total		1,420 38
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Night attendants' quarters—men	\$539 68	
Night attendants' quarters—women	598 46	

Total		\$1,138 14
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Supervisors' quarters—men	\$111 26	
Supervisors' quarters—women	93 01	
Clothing clerk's office—men	89 13	
Clothing clerk's office—women	83 35	

Total		\$376 75
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Storeroom fixtures	\$320 00
Storeroom stock	4,032 44
Cold storage	3,887 37
Bakery	2,635 39
Laundry	15,359 66
Shoemaker's tools	5 95
Carpenter's shop	53 64
Sewing-room	341 34
Industrial building	1,593 96
Power-house	1,088 77

Total	\$29,318 52
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Farm	\$4,875 48
Dairy	2,801 66

Total	\$7,677 14
Awnings and screens.....	1,774 89
Telephone and signal system.....	3,229 55

Total	\$117,297 51
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Real Estate—

Land, 363.791 acres.....	\$39,214 84
Cost of buildings.....	1,347,977 31
Permanent improvements	2,932 64

Total	\$1,390,124 79
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Grand total.....	\$1,507,422 30
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